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Emerging Adult Friendship:
A Consequence of Family Communication and Catalyst for Well-Being

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Emerging Adult Friendship:
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Dedication

I dedicate this dissertation to Coco, for teaching me the value of education, for accepting me always while also challenging me to be my best, and, mostly, for modeling strength beyond measure and love that is selfless.

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The late theologian Dietrich Bonhoeffer once said that, in life, “we receive a great deal more than we give, and that it is only with gratitude that life becomes rich.” This quote is particularly relevant here, as the individuals and opportunities noted below have given me far more than I could ever repay.

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Emerging Adult Friendship:
A Consequence of Family Communication and Catalyst for Well-Being

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The purpose of this research was to examine the friendships of emerging adults as influenced by familial environments in order to illuminate interpersonal aspects of well-being. Recent literature affirms that friendships play a critical role in the lives of emerging adults; these interpersonal connections rely on the use of friendship formation strategies and maintenance behaviors. Employing a longitudinal design that included both participant and peer reports, this study found that individuals' use of friendship formation strategies and maintenance behaviors contribute to their overall well-being and that the path for maintenance behaviors was partially mediated by relational quality with friends. Further, it was expected that the propensity to engage in friendship work (i.e., formation strategies and maintenance behaviors) would be predicted by communication within the parent-child relationship. Recent scholarship asserts that parent confirmation affects both the socialization and psychosocial development of children. The current work employed a confirmation perspective to assess how families lay the groundwork for emerging adults' communicative behaviors in friendship and found that parent confirmation predicted individuals' use of friendship formation and maintenance behaviors. Together, these associations pave a social-cognitive pathway from family and friendship to well-being.

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Chapter 1: Introduction

What is the origin of personal well-being and individual happiness? This perennial question, claimed by philosophers, pop stars, politicians, and self-help gurus alike, has in recent decades provoked a substantial corpus of academic inquiry (Argyle, 2001; Diener, Suh, Lucas, & Smith, 1999; Myers, 1992). Recent scholarship has devoted attention to interpersonal aspects of well-being, proposing that happiness comes from participation in satisfying social relationships (Diener & Seligman, 2002). This work, however, fails to describe *how* social relationships lead to persons' well-being. The current project attempts to illuminate interpersonal aspects of well-being by examining the friendships of emerging adults. As emerging adults—people in their late teens through mid-20s—leave home and establish new social networks (Blieszner & Adams, 1992; Pascarella & Chapman, 1983), they may find themselves in a unique "sink or swim" position, either prepared to form and maintain new relationships or not. Friendships between emerging adults often are considered more intense and time consuming than those among adults within other age cohorts, such as those that rely more heavily on family ties for social interaction (Argyle & Henderson, 1984; Rawlins, 1992). Thus, in studying how social relationships associate with well-being, it is not only appropriate but especially important to consider the emerging adulthood population. Explicating the links between friendships and well-being among the emerging adult population constitutes the primary objective of this project.

Following the premise that friendships play a critical role in the lives of emerging adults (Samter, Whaley, Mortenson, & Burleson, 1997), I argue that individuals' use of friendship formation strategies and maintenance behaviors contributes to their overall well-being. I maintain that there is a need for knowing what may predict persons' use of friendship formation strategies and maintenance behaviors and point to the communication between parent and child within the family environment. To investigate these claims, I propose measuring the effects of persons' friendship behaviors on their personal well-being through a longitudinal design. I argue that relational quality mediates the connection between friendship behaviors (i.e., formation strategies and maintenance behaviors) and well-being. In other words, individuals' friendship work contributes to their overall well-being insofar as these practices yield higher quality friendships. Because it is difficult to gauge friendship quality effectively when accounting for only one member of a dyad, data from participants' friends will also be collected in order to validate claims of relational quality and identify trends in friendship behavior as related to well-being. Finally, I argue that persons' use of friendship behaviors not only influences relational quality and well-being over time but also that such behaviors are learned within, and influenced by, families. Factors related to the family environment, especially parent-child interaction, affect the psychosocial development of young adults (Koesten, 2004). In particular, research shows that through confirming parent-child interaction, young people actually glean positive communication skills (Schrodt, Ledbetter, & Ohrt, 2007) that will better prepare them for life outside the home. I therefore propose that parent confirmation is capable of predicting individuals' use of

friendship formation strategies and maintenance behaviors. Together, the associations from family and friendship to well-being will be described as a social-cognitive pathway and will provide a framework for future scholarship that explores how friendship behaviors are a consequence of family ties and also a catalyst for personal well-being.

Chapter 2: Literature Review and Rationale

The following literature review consists of three sections. In order to explicate an interpersonal pathway from family and friendship to well-being, it is necessary first to understand how individuals' friendship behaviors may lead to well-being. Thus, this first section is an overview of the defining features of friendship and the behaviors associated with forming and maintaining friendships. In the second part of this review, the impact of achieving relational quality with friends is considered as a mediator between friendship behaviors and well-being. Additionally, the second part of this review outlines the purposes for and benefits of collecting reports of relational quality within a given friendship from both the participant and their chosen friend (i.e., a "friend check"). Moving away from the outcomes associated with friendship behaviors, the third section focuses on the antecedents of friendship behavior, with considerable interest given to the communication within the parent-child relationship. To conclude each section, associated research questions and hypotheses are proposed.

Friendship as a Social Context

Researchers have approached the concept of friendship and its study from a variety of perspectives (for a review, see Fehr, 1996). Allan (1989) maintained that the category of "friend" is dissimilar from "colleague" or "cousin," terms that denote the social position of each individual. Instead, "friend" is a "relational term which signifies something about the quality and character of the relationship" (Allan, 1989, p. 16). Friends are people who provide companionship (Hays, 1984), discuss thoughts and feelings (Argyle & Henderson, 1984), provide opportunity for fun, and share mutual

activities and interests (Hays, 1989; Parks & Floyd, 1996). It is important to note that friendship is a voluntary relationship (Blieszner & Adams, 1992; Hays, 1989; Wright, 1984). The deliberate nature of friendship is unlike other close relationships, such as the kind of relational ties that individuals experience at home or even work. Families are typically comprised of involuntary, long-lasting relationships (Vangelisti, 1993) and follow hierarchical structures. Alternatively, friendships are traditionally considered to be chosen relationships (Rawlins, 1992), characterized by equality (Allan, 1989), mutual involvement, and unconstrained interaction, wherein individuals are valued for their uniqueness (Wright, 1984).

Although, as Rawlins (1992) suggests, people get to choose their friends, both scholarly work and lived practices affirm that the process of forming and maintaining friendships is easier said than done. Even in a modern, technologically-savvy society in which individuals amass "friends" by the hundreds on their Facebook accounts, research shows that most adults have only two close friends—a decrease from three close friends when a similar study was completed in 1985 (McPherson, Smith-Lovin, & Brashears, 2006). Even more alarming, the number of people who report having no one with whom to discuss important matters has doubled to one in four during the same time period. These findings suggest that, in general, people may be experiencing a decline in friendship and may lack someone with whom they can discuss important matters. The results of this study indicate a legitimate threat to persons' well-being, as research shows that individuals who can name several close friends with whom they freely share their intimate concerns are healthier and happier than people without such friendships (Cohen,

Sherrod, & Clark, 1986; House, Landis, & Umberson, 1988). Likewise, Reis (2001) argues that feeling understood and cared for by a close other is considered a core component of persons' well-being. Continuing this line of investigation and uncovering links between how the formation and maintenance of friendship impacts persons' well-being constitutes one of my primary research objectives. Previous research has shown that the formation and maintenance of voluntary ties like friendship rely heavily on the use of certain communicative behaviors (e.g., initiative taking and self-disclosure). In this regard, attention to the process of friendship formation and maintenance behaviors gains greater urgency.

FRIENDSHIP BEHAVIOR

The argument advanced in the current study is that both the formation and maintenance of friendships play a critical role in emerging adults' pathway toward overall well-being. A recent study by McEwan and Guerrero (2010) explored how the communication skills of college freshmen predicted their use of various friendship formation strategies, including group involvement, online social networking, disclosure to others, responsiveness, and invitations. Here, *group involvement* is characterized by actions such as joining a social club or becoming involved with a service group, which provide opportunities to be in proximity to others and form new friendships. In the digital age, however, proximity is not always required, as people are able to form friendship through *online social networking* (Fehr, 2008). For decades, *disclosure to others* (i.e., sharing information about oneself with others) has been viewed as a critical factor for developing relationships (Altman & Taylor, 1973; Hays, 1985). Specifically,

self-disclosures that yield reciprocal disclosures from the other person promote sharing between two potential friends (Fehr, 2008). As well, *responsiveness* toward others (i.e., communication which demonstrates care, concern, and liking) is believed to prompt friendship (Fehr, 2008). A responsive communicator is other-centered and shows consideration for and affection toward others (Hays, 1984). Finally, issuing *invitations* (e.g., asking people to attend events) is another important strategy for developing friendship (Shaver, Furman, & Buhrmester, 1985), sharing activities, and spending time together (Fehr, 2008).

In addition to exploring how well-being is influenced by the strategies people use to make friends, this study also focuses on how the maintenance of friendship is associated with persons' well-being. Previous findings acknowledge that friendships do require maintenance (Blieszner & Adams, 1992; Guerrero & Chavez, 2005), or else they are likely to deteriorate (Canary & Stafford, 1992; Stafford & Canary, 1991). As Dindia and Canary (1993) describe, relational partners engage in relational maintenance for four reasons: "to keep a relationship in existence, to keep a relationship at a specific state or condition, to keep a relationship in satisfactory condition, and to keep a relationship in repair" (p. 163). Whether individuals are behaving strategically or routinely (Canary, Stafford, Hause, & Wallace, 1993), relational maintenance is often associated with the communicative acts that people employ to accomplish relational goals and keep relationships in a desired state (Canary & Stafford, 1992; Stafford & Canary, 1991).

Scholars have identified specific communicative behaviors that are important for friendship maintenance. Hays (1984) discussed four theoretical areas of behavioral

content that are important in friendships—consideration, affection, companionship, and communication. Likewise, Rose and Serafica (1986) asked same-sex friends, "How do people stay friends?" From their study, casual friendships were perceived as requiring more proximity and less affection than close or best friends. In a study by Oswald, Clark, and Kelly (2004), friendship maintenance was determined to consist of four key factors—*positivity* (behaviors that make the friendship rewarding and enjoyable, e.g., trying to make each other laugh); *supportiveness* (providing assurances such as emotional support); *openness* (self-disclosure and sharing private thoughts); and *interaction* (activities and behaviors that friends do together, e.g., going to social gatherings).

Friendships play a critical role in the lives of emerging adults and are formed and maintained through a variety of communicative behaviors. Following that social relationships are key to well-being (Diener & Seligman, 2002) and that emerging adults often leave home and part from most, if not all, of their known social relationships, it stands to reason that the well-being of emerging adults ought to be associated with their forming and maintaining new social relationships. It is proposed here that emerging adults' use of friendship formation strategies and maintenance behaviors will predict well-being. Thus, the following are posited:

H1: Emerging adults' intent to use friendship formation strategies at Time 1 will predict well-being at Time 1.

H2: Emerging adults' use of friendship maintenance behaviors at Time 1 will predict well-being at Time 1.

H3: Emerging adults' use of friendship formation strategies at Time 2 will be positively correlated with well-being at Time 2.

H4: Emerging adults' use of friendship maintenance behaviors at Time 2 will be positively correlated with well-being at Time 2.

H5: Emerging adults' use of friendship formation strategies at Time 1 will partially mediate the relationship between well-being at Time 1 and well-being at Time 2.

H6: Emerging adults' use of friendship maintenance at Time 1 will partially mediate the relationship between well-being at Time 1 and well-being at Time 2.

RELATIONAL QUALITY WITH FRIENDS

The argument preceding suggests that certain friendship behaviors drive persons' well-being. Yet all efforts to form and maintain friendship do not lead to the same outcome. While employing communicative efforts to form and maintain friendship is critical to persons' overall well-being, the relational quality that individuals actually gain through such communicative efforts may vary. Hence, the present study contends that individuals' use of friendship formation strategies and maintenance behaviors contributes to their overall well-being, insofar as these practices yield higher quality friendships.

Literature regarding the relational quality of adult friends is sparse, and this paucity motivates the second argument put forth in the current project. Studies of adult friendship frequently employ a cross-sectional design and classify friendship as the number of people in a persons' social network. In this tradition, scholars often examine

the number of friends people have in terms of outcomes such as social capital or life satisfaction (Taylor, Chatters, Hardison, & Riley, 2001). Research also indicates that individuals who can name several close friends with whom they share their intimate concerns are healthier and happier than people without such friendships (Cohen, Sherrod, & Clark, 1986; House, Landis, & Umberson, 1988). Such findings affirm that there is a meaningful link between friendship and well-being but do not reveal *how* friendships actually make people happier.

The current project is poised to address this shortcoming. By employing a longitudinal research design, associations can be made between friendship work, well-being, and the relational quality that friends experience. There is research to suggest that the quality of communication, whether it is satisfying or not, and relational closeness are meaningful indicators of overall relational quality. Keeley and Hart (1994) stated that the 'quality of a personal relationship is inexorably related to the quality of communication between the parties involved in that relationship' (p. 135), which seems to suggest for this study that quality friendships are likely to experience satisfying communication. Additionally, relational closeness is considered to be an important criterion variable for measuring the status of a friendship (Johnson, Wittenberg, Villagran, Mazur, & Villagran, 2003) and in a recent study (Ledbetter, Griffin, & Sparks, 2007) served as the sole indicator of friendship quality. Thus, communication satisfaction and relational closeness are two constructs of interest in this study, to illuminate how friendship quality mediates the link between friendship work and well-being .

Specifically, it is predicted that emerging adults' use of friendship maintenance behaviors leads to relational quality with their friends. Likewise, it is anticipated that persons' report of relational quality will also predict future use of friendship maintenance behaviors, such that people who report greater relational quality will be less likely to forego use of friendship maintenance behaviors over time. There are a number of explanations for why this would be true. For instance, engaging in friendship maintenance behaviors likely leads to greater relational quality in the first place, and thus individuals are likely to continue such behavior out of habit, or because it has proved to be rewarding. Furthermore, it is expected that the use of friendship formation strategies and maintenance behaviors will positively predict persons' relational quality with friends, and, in turn, relational quality with friends should predict emerging adults' overall well-being. This mediating relationship can be observed such that greater relational quality with friends is the result of friendship formation strategies and maintenance behaviors and also predicts an increase in well-being.

In other words, engaging in friendship work (i.e., friendship formation strategies and maintenance behaviors) is important for persons' well-being, especially when these behaviors lead to friendships that are close and satisfying. To advance previous research and address the proposed mediation, the following are posited:

H7: Emerging adults' use of friendship maintenance behaviors at Time 1 will positively predict relational quality with friends at Time 1.

H8: *Relational quality with friends at Time 1 mediates the association between use of friendship maintenance behavior at Time 1 and use of friendship maintenance behavior at Time 2.*

H9: *Emerging adults' report of relational quality with friends at Time 2 mediates the associations between use of friendship formation strategies and well-being at Time 2.*

H10: *Emerging adults' report of relational quality with friends at Time 2 mediates the associations between use of friendship maintenance behaviors and well-being at Time 2.*

"FRIEND CHECK"

Friendship quality is considered here to be critical for emerging adults' well-being and is therefore important to this study. In addition to first-person report, gaining peer reports of friendship quality is advantageous for multiple reasons—namely, to affirm the association between relational quality and well-being, and to expose patterns of agreement or disagreement between members of the dyad. It is expected that, at both Time 1 and Time 2, high agreement of friendship quality between friends will be positively associated with individuals' well-being. It also is anticipated that patterns of agreement in friendship quality will be associated with individuals' friendship formation strategies and maintenance behaviors. The literature has yet to show this connection, but lived experiences point to different ways that the relationship between friendship work and well-being may vary based on partners' agreement on relational quality (i.e., for the purposes of this study, communication satisfaction and relational closeness). For

instance, in the event that partners disagree on friendship quality it is possible that the lack of agreement—especially if perceived by the participant—will mitigate any positive association between friendship work and well-being. A mismatch in perceived friendship quality may also indicate that the friendship is unlikely to survive, in which case engaging in friendship work may have adverse consequence on individual well-being. By contrast, if partners agree that friendship quality is high, and especially if the agreement is recognized or perceived, there may be a greater likelihood that the friendship will persist and that engaging in friendship work positively impacts individual well-being. These examples illustrate the point that conducting a "friend-check" is necessary for untangling the complex nature of how relational quality with friends is associated with friendship work and well-being. Hence, the following hypotheses and research questions are posed:

H11: Agreement in partners' report of friendship quality at Time 1 will be positively associated with report of well-being at Time 1.

H12: Agreement in partners' report of friendship quality at Time 2 will be positively associated with report of well-being at Time 2.

RQ1: Does agreement in partners' report of friendship quality moderate friendship formation strategies and well-being?

RQ2: Does agreement in partners' report of friendship quality moderate friendship maintenance behaviors and well-being?

THE FAMILY

Thus far, the focus of this study has been on outcomes associated with friendship behaviors. However, if emerging adults' relational quality and well-being is positively associated with use of friendship formation strategies and maintenance behaviors, careful attention ought also to be given to factors that may predict whether individuals actively form and maintain friendships. A recent study suggests that family communication influences the experience and health of friendships (Ledbetter, 2009). This is a logical finding, being that families set the stage for young persons' social development (Moos, 2002) and continue to influence young people even after they have left home (Koerner & Fitzpatrick, 2002). The social knowledge learned inside the family informs young people as they leave the home, transition into adulthood, and develop new interpersonal relationships (Koesten, 2004). The impact of the family unit can be understood through the lens of interpersonal communication, as families are based on, formed, and maintained through communication (Vangelisti, 2004). It is through families that people learn how to communicate and think about communication (Fitzpatrick & Caughlin, 2002). By communicating, families create, brand, and share unique world views (Fitzpatrick & Ritchie, 1994) that shape not only how members interact with one another, but also how they perceive their social environment outside of the family (Koerner & Fitzpatrick, 2002). Thus, family communication can and should be considered as a predictor of emerging adults' friendship behaviors.

There is a growing body of literature that demonstrates how family communication is associated with factors related to adolescents' psychological

adjustment (Dailey, 2009) like self-esteem (Schrodt, Ledbetter, & Ohrt, 2007) and behavior in extrafamilial relationships, such as communication apprehension (Elwood & Schrader, 1998) and communication competence (Koesten, 2004). Even though the outcome variables from these studies may be logically related to friendship behaviors, there are gaps in the literature that fail to explain how family communication relates to emerging adults' propensity to form and maintain friendships. Scholars have highlighted the parent-child relationship as being especially important for young persons' growth and socialization (Gitelson & McDermott, 2006; Peterson & Hann, 1999). In particular, it is noted that young persons' self-development is linked to confirmation received from parents (Ellis, 2002; Sieburg, 1985), and much has been written recently citing the association between parent confirmation and young adults' development (Dailey, 2006, 2008, 2009; Schrodt, Ledbetter, & Ohrt, 2007).

Confirmation is an interactional process (Ellis, 2002) between parent and offspring that is capable of validating children's sense of self and identity (e.g., Buber, 1965; Cissna & Sieburg, 1981; Laing, 1961; Watzlawick, Beavin, & Jackson, 1967). Confirming messages from parents promote a unique and positive sense of self (Dailey, 2006, 2009) and communicate to children that they are allowed to have their own perspective and are accepted unconditionally (Friedman, 1983; Laing, 1961). Conversely, disconfirming messages imply inferiority and reject young persons' validity as a speaker (Ellis, 2002; Laing, 1961), which is likely to prompt a negative view about one's identity, worth, and relation to others. The parent-child relationship is especially important for children, and parents who continue to confirm their children after they leave home are

likely providing a source of support and encouragement that buffers their children from stressors that can lead to poor mental health (Schrodt, Ledbetter, & Ohrt, 2007).

More than a form of direct support and encouragement, however, the argument put forth here is that confirmation from parents will lead emerging adults to form and maintain new networks of friends that, when friendship quality is achieved, are capable of enhancing children's well-being. The parent-child relationship and communicative practices within may be the archetype by which young people model their future relationships. Confirmation from parents has been shown to be positively associated with young persons' psychosocial adjustment (Dailey, 2009) and sense of validity as a communicator (Ellis, 2002; Laing, 1961), leading to greater esteem and willingness to initiate relationships.

Confirmation in the parent-child relationship, a critically important factor for the development of young people, is likely to be an important factor for emerging adults as they leave home, enter a new environment with the possibility for new relationships.

Thus, it stands to reason that emerging adults who receive parent confirmation are more likely to engage in friendship work (i.e., formation strategies and maintenance behaviors). There are a number of reasons for why this may be true. For instance, parent confirmation is believed to validate the child as a speaker, but it also creates an immediate opportunity for the child to have positive, interpersonal interactions with the parent. In this way, confirmation affirms children as valuable human beings and promotes confidence in young persons' interpersonal competency. Furthermore, parent confirmation models for the child interpersonal behavior that can be learned from and

employed again during subsequent interactions. This means that, through confirming parent-child interactions, young people actually glean communication skills (Schrodt, Ledbetter, Ohrt, 2007) that will prepare them for life outside the home.

Parent confirmation is important to the overall development of children and is especially important for young persons' interpersonal maturation. In particular, we can expect that emerging adults who receive parent confirmation will be more likely to use friendship formation strategies and maintenance behaviors. Thus, the following are posited:

H13: Emerging adults' report of parent confirmation at Time 1 will be positively correlated with emerging adults' intent to use (a) friendship formation strategies and use of (b) friendship maintenance behaviors at Time 1.

H14: Emerging adults' report of parent confirmation at Time 1 will be positively correlated with emerging adults' use of (a) friendship formation strategies and (b) friendship maintenance behaviors at Time 2.

H15: Emerging adults' intent to use friendship formation strategies at Time 1 will partially mediate the relationship between parent confirmation and use of friendship formation strategies at Time 2.

H16: Emerging adults' use of friendship maintenance behaviors at Time 1 will partially mediate the relationship between parent confirmation and use of friendship maintenance behaviors at Time 2.

Chapter 3: Method

To examine the proposed hypotheses and research questions, the primary investigator collected questionnaire data at two time points from both participants and peers during their first semester at college. Time 1 data collection took place within the first three weeks of the fall 2011 semester, and Time 2 data collection took place during the last three weeks of the same semester. This time frame between data collection points was chosen because freshmen friendships (Hays, 1985) and overall adjustment to college (Pascarella & Chapman, 1983) traditionally stabilize after six weeks of being on campus.

Participants and Procedures

Participants include undergraduate students enrolled at a large southwestern university. Primarily, students were recruited through undergraduate courses and were offered extra credit for their participation. To increase participation among first year students, the primary investigator circulated flyers in residence halls across campus advertising the study. Offering extra-credit to students recruited through residence halls was not feasible, but a drawing for university bookstore gift cards was offered to motivate participation. The majority of participants were recruited through extra-credit offering (n = 234, 86%).

The final sample included 272 individuals (97 males and 175 females) currently enrolled as freshmen in college. Participants ranged in age from 18 to 21 years old (M = 18.12, SD = .38) and self-identified as White/Caucasian (n = 150, 55.1%), Asian/Asian-American/Pacific Islander (n = 73, 26.8%), Hispanic or Latino (n = 45, 16.5%), Black/African-American (n = 18, 6.6%), and American Indian (n = 5, 1.8%). The vast

majority of participants (*n* = 264, 97.1%) had lived at home with their family of origin the summer immediately prior, slightly less (*n* = 262, 96.3%) had lived at home the full academic year prior. When asked which parent figure they communicated with most about the transition to college, most participants (*n* = 215, 79.0%) identified a maternal figure.

Participants completed both a Time 1 and Time 2 questionnaire via an online survey system. Prior to their participation, individuals read a cover letter that included a description of the project and information regarding informed consent. The description of the project informed participants that the study was designed to examine the link between interpersonal relationships and well-being and that, as part of the investigation, participants would be asked to report information pertaining to their friendships and familial relationships. Individuals were reminded that their participation was completely voluntary and could be ended at any point without penalty. After having time to review the description of the project, participants were informed that "because this is an online survey… your consent is given when you enter the survey." Only individuals who gave their consent were allowed to participate in the study. The Time 1 questionnaire included items pertaining to: parent confirmation, friendship formation strategies, friendship maintenance behaviors, relational quality with friends, well-being, and demographic information. At Time 2, participants completed a similar questionnaire including: friendship formation strategies, friendship maintenance behaviors, relational quality with friends, and well-being.

MEASURES

Friendship formation strategies were studied at both collection points by a measure originally developed by McEwan and Guerrero (2010). The items in the friendship formation strategies measure pertain to both the structures (e.g., campus organizations) that people use to form social connections as well as the communicative strategies (e.g., talking about hobbies) that people employ to initiate friendships. At Time 1, participants were asked to respond to a series of questions probing the likelihood that they would make new friends through various formal and informal structures (e.g., "joining an on-campus club" or "meeting a new friend through an existing one"). Responses were assessed using a Likert-type scale ranging from *not at all likely* (1) to *highly likely* (7). At Time 2, participants were shown the same items but were asked to report whether "yes" they actually did or "no" they did not meet new friends through the various strategies outlined. The remaining items from McEwan and Guerrero's measure asked participants to report on their use of communicative strategies for making friends in college. At Time 1, participants responded to future tense statements (e.g., "will talk about my hobbies") using a seven-point, Likert-type scale ranging from *not at all likely* (1) to *highly likely* (7). At Time 2, participants responded to the same items but each statement was phrased in the past tense (e.g., "talked about my hobbies") and the seven-point, Likert-type scale anchors ranged from *never* (1) to *often* (7). McEwan and Guerrero subjected all items regarding communicative strategies to a principal components analysis with varimax rotation, and three factors emerged—responsiveness, disclosure to others, and invitations. Likewise, these same factors were determined to be

stable in the present study: *responsiveness* (*a* = .92, six items, *M* = 4.10, *SD* = 1.48), *disclosure to others* (*a* = .79, four items, *M* = 4.23, *SD* = 1.31), and *invitations* (*a* = .88, five items, *M* = 4.12, *SD* = 1.84). The responsiveness factor included items such as "told people they are important to me," and "told people they are my friends." Disclosure to others consisted of items such as "talked about how I spent my summer" and "discussed future plans." Finally, the invitations factor incorporated items such as "invited people to hang out with me" and "invited people to attend social events with me." The *alpha* reliability at Time 1 and Time 2 was .96 and .87, respectively.

The *Friendship Maintenance* scale by Oswald, Clark, and Kelly (2004) was used in this study to assess participants' friendship maintenance behaviors at both Time 1 and Time 2. Following the prompt, "how often do you and your close friends…," participants responded to a series of eighteen items on a seven-point, Likert-type scale with values ranging from *never* (0) to *very frequently* (6). The eighteen items collapse into four factors—positivity (e.g., "Try to be upbeat and cheerful when together?"), supportiveness ("Support each other when one of you is going through a difficult time?"), openness ("Share your private thoughts with each other?"), and interaction ("Do favors for each other?"). The *alpha* reliability at both Time 1 and Time 2 was .93.

Friendship Quality was studied as two distinct factors—relational closeness and communication satisfaction. The *Relational Closeness Scale* designed by Vangelisti and Caughlin (1997) was used to assess participant perception of psychological closeness with a chosen friend. Items included in the original scale are intended to assess global perception of psychological closeness with a target person (e.g., "How satisfied are you

with your relationship with your [relation]?"; "How close are you to your [relation]?") across a seven-point, Likert-type scale from *not at all* (1) to *very much* (7). In this study, the specified relation is "friend" and responses were collected from participants as well as the friends they selected for peer-report at both Time 1 and Time 2. At both Time 1 and Time 2, the closeness scale exhibited good internal reliability ($\alpha = .93$).

Additionally, at both Time 1 and Time 2, participants and the friends they selected responded to a sixteen-item, modified version of Hecht's (1978) measure of *Interpersonal Communication Satisfaction.* For the current study, participants were asked to follow the prompt, "During conversations with my friend…" and report on communication satisfaction experienced within a given friendship. Responses ranged across a seven-point, Likert-type scale from *strongly disagree* (1) to *strongly agree* (7). Sample items included "we each get to say what we want," "our conversations flow smoothly," and reverse-scored items such as "I do not enjoy our conversations." The *alpha* reliability at Time 1 and Time 2 was .90 and .93, respectively.

Dyadic Agreement of friendship quality was verified and cross-checked by reports obtained from participants' friends. Responses to items above assessing friendship quality from individual participants were compared with responses to the same items provided by participants' friends. To collect these data, participants were first prompted to think about a specific friend they have made since their matriculation to college. Next, they were asked to provide the name and e-mail address for that individual and to keep only that friend in mind while completing two brief measures on friendship quality (i.e., The Relational Closeness Scale and Interpersonal Communication

Satisfaction). This process was repeated two more times—meaning, participants could report on three friends in total, unless participants indicated that they "have not yet made another friend" at college, in which case they were directed to the next section of the questionnaire. Participants completed the full questionnaire at both time points; the friends they selected for peer-report (people they identify by name and e-mail address) were invited to complete an abbreviated questionnaire that included the friendship quality section only. To encourage peers to complete the friendship quality section, two steps were followed. At the end of both the Time 1 and Time 2 survey, participants were provided a hyperlink for the friend survey, and were asked to copy the hyperlink and e-mail it individually to each friend that they had reported on and identified during the survey. As well, the primary investigator sent e-mails to all peers identified by each participant, which asked for their participation and included the hyperlink for the brief, friendship quality questionnaire.

Well-Being was measured at both Time 1 and Time 2 using the nine-item *Overall Adjustment Scale* by Aspinwall and Taylor (1992). The scale contains questions regarding happiness, which ask for participants to compare their own happiness with that of the average freshman at their university (i.e., "Compared to the average freshman, how happy do you think you are?") using a five-point Likert-type scale that ranges from *much less happy* (1) to *much happier* (5). Students were also asked to rate their academic, social, and overall adjustment (i.e., "Overall, how well do you think you've adjusted to college?"), and report the extent to which they feel they belong at the university (two items). A higher score on the adjustment scale indicates greater subjective happiness in

comparison to a peer group, and it is indicative of successful adjustment to college (Aspinwall & Taylor, 1992). The *alpha* reliability at Time 1 and Time 2 was .90 and .91, respectively.

Parent Confirmation was studied at Time 1, by assessing participants' report of the acceptance (Schaeffer, 1965) and challenge (Dailey, 2008) they received from the parent that communicated with them most about their transition to college. Participants were asked to report on only one parental figure—the parent or parental figure "you have talked most with about your transition to college." This approach was chosen because it prioritizes the parent-figure that the participant likely communicates with the most, prevents participants from providing general overview of their relationship with multiple parents, and standardizes the questionnaire for those participants with only one parent figure. Including both subscales—acceptance and challenge, there are twenty- items total. Participant responses for all items ranged across a seven-point, Likert-type scale from *strongly disagree* (1) to *strongly agree* (7). The acceptance subscale included ten items adapted from Schaefer (1965), including: My [parental figure] "smiles at me often," "speaks to me in a warm and friendly voice," and "does not praise me" (reverse-scored). The challenge subscale was assessed using Dailey's (2008) parental challenge measure, and items included: My [parental figure] "pushes me to resolve problems rather than just complain about them," "makes me deal with the consequences of my decisions or behaviors," "asks me to explain the reasoning behind my decisions," and "discusses different perspectives with me regarding complex issues." The *alpha* reliability for each of the subscales (i.e., Parent Support and Parent Challenge) was .90.

The *Ten Item Personality Inventory* (TIPI) was developed by Gosling, Rentfrow, and Swann (2003). With two items tapping each dimension, the TIPI measures quickly the Big Five personality dimensions (Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience). Each item in the TIPI follows the prompt, "I see myself as," and responses for all items range across a seven-point, Likert-type scale from *strongly disagree* (1) to *strongly agree* (7). Regarding the present study, the alpha reliability for the extraversion dimension of the TIPI (i.e., "extraverted, enthusiastic"; and reverse-coded item: "reserved, quiet") yielded poor *alpha* reliability at .08.

Chapter 4: Results

The purpose of this research was to examine friendship among emerging adults as influenced by familial environments in order to illuminate interpersonal aspects of well-being. A number of analyses were conducted to test a social-cognitive pathway from variables associated with family and friendship to well-being. These analyses are described below to provide a context within which emerging adults' friendship behavior can be interpreted.

All hypothesized path models were tested using maximum likelihood estimation in M*plus* Version 6 (Muthén & Muthén, 2010). Model fit of the hypothesized path models was assessed using four common fit indices: (a) model chi-square, (b) comparative fit index (CFI; Bentler, 1990), (c) standardized root mean square residual (SRMR; Bentler, 1995), and (d) root mean square error of approximation (RMSEA; Steiger & Lind, 1980). In examining model fit, a non-significant chi-square is preferred as an indication of adequate model fit suggesting that the observed covariance matrix is similar to the model-implied covariance matrix. However, the chi-square is adversely affected by large sample sizes. More specifically, large sample sizes may augment small differences between the observed and implied covariance matrices, resulting in a statistically significant chi-square. As a result, additional fit indices were used to assess model fit. CFI values greater than .90 as well as SRMR and RMSEA values less than .05 indicate acceptable model fit (Kline, 2005). Additionally, Akaike's information criterion (AIC; Akaike, 1974) and the Bayesian information criterion (BIC; Schwarz, 1978) are used for model comparisons with smaller values indicating better model cross-validation.

PRELIMINARY ANALYSES

Descriptive statistics, including means, standard deviations, Pearson product–moment correlations, and Cronbach's Alpha (α) for all variables included in the primary data set are reported in Table 1. To assess how personality attributes may play a role in emerging adults' pathway to well-being, extroversion was initially included as a variable of interest in all analyses. The extroversion variable was calculated as the average of the two items intended to measure extroversion from the *Ten Item Personality Inventory* (TIPI). Correlations between extroversion reported at Time 1 and the variables of interest in the hypothesized models were examined. Extroversion reported at Time 1 was found to be significantly and positively correlated with several variables (see Table 1). As a result, extroversion was initially included as a control variable in all of the hypothesized models. Results from the tests of model comparison (i.e., AIC and BIC) indicated that extroversion be included in the path models, but the inclusion of the extroversion variable actually worsened fit of the models as gauged by the model fit criteria. Given the poor model fit, extroversion was deleted from the hypothesized models. Further, low reliability associated with the extroversion variable indicates that the model parameter estimates would not be trustworthy with respect to stability, rendering guarded interpretations of findings at best.

Table 1

Correlations among the Variables in the Primary Data Set

	α	*M* (*SD*)	Sex	FF1	FF2	FM1	FM2	WB1	WB2	CL1	CL2	CS1	CS2	ACC	CHA
Sex	--	--	--												
FF1	.96	5.19 (.91)	.80	--											
FF2	.87	3.92 (1.75)	.13*	.25**	--										
FM1	.93	5.25 (.66)	.37**	.61**	.21**	--									
FM2	.93	5.04 (.76)	.30**	.46**	.32**	.63**	--								
WB1	.90	3.72 (.78)	-.14*	.37**	.20**	.13*	.20**	--							
WB2	.91	3.78 (.83)	-.06	.35**	.27**	.20**	.32**	.61**	--						
CL1	.93	5.70 (1.06)	.13*	.36**	.05	.43**	.30**	.19**	.06	--					
CL2	.93	5.86 (.99)	.28**	.36**	.10*	.40**	.49**	.18**	.34**	.33**	--				
CS1	.90	5.90 (.73)	.19**	.49**	.18**	.52**	.43**	.28**	.19**	.68**	.39**	--			
CS2	.93	5.90 (.83)	.30**	.38**	.18**	.40**	.56**	.27**	.41**	.46**	.27**	.77**	--		
ACC	.90	5.94 (.92)	.03	.25**	.14*	.28**	.25**	.09	.09	.26**	.16**	.11*	.24**	--	
CHA	.90	5.49 (1.15)	.01	.36**	.15**	.30**	.28**	.14**	.11*	.26**	.24**	.11*	.21**	.71**	--
EX1	.08	5.44 (0.85)	-.02	.39**	.20**	.23**	.21**	.45**	.36**	-.06	-.00	-.07	.00	.17**	.30**

Note. *$p < .05$, **$p < .01$. FF1 = Friendship Formation Strategies at Time 1, FF2 = Friendship Formation Strategies at Time 2, FM1 = Friendship Maintenance Behaviors at Time1, FM2 = Friendship Maintenance Behaviors at Time 2, WB1 = Well-Being at Time 1, WB2 = Well-Being at Time 2, CL1 = Closeness with Friend at Time 1, CL2 = Closeness with Friend at Time 2, CS1 = Communication Satisfaction with Friend at Time 1, CS2 = Communication Satisfaction with Friend at Time 2, ACC = Parent Acceptance, CHA = Parent Challenge, EX1 = Extroversion at Time 1. For sex, 0 = females and 1 = males.

To test the influence of participants' biological sex in regard to the present study, independent samples t-tests were conducted, revealing significant difference for friendship maintenance behaviors at Times 1 and 2, relational closeness at Times 1 and 2, and communication satisfaction at Times 1 and 2 between women and men (see Table 2). Specifically, women had significantly higher ratings on friendship maintenance behaviors at Times 1 and 2, relational closeness at Times 1 and 2, and communication satisfaction at Times 1 and 2 than men. Women participants generally reported lower well-being at Times 1 and 2 than did men, but this difference was only found to be statistically significant at Time 1. Consequently, biological sex was dummy-coded (1 = *female*, 0 = *male*) and entered as a control variable for all hypothesized models.

Table 2

T-test of Differences Between Women and Men

Outcome	*t-value*	*Df*	*p*
FF1	-1.318	270	> .05
FF2	-5.95	148	< .001
FM1	-3.172	268 [a]	< .01
FM2	-4.820	166 [a]	< .001
WB1	2.419	241 [a]	< .05
WB2	.961	269	> .05
CL1	-2.132	268	< .05
CL2	-4.760	267	< .001
CS1	-3.172	268	< .01
CS2	-4.195	172 [a]	< .001
ACC	-.442	270	> .05
CHA	-.087	270	> .05
EX1	.266	213 [a]	> .05

Note. FF1 = Friendship Formation Strategies at Time 1, FF2 = Friendship Formation Strategies at Time 2, FM1 = Friendship Maintenance Behaviors at Time1, FM2 = Friendship Maintenance Behaviors at Time 2, WB1 = Well-Being at Time 1, WB2 = Well-Being at Time 2, CL1 = Closeness with Friend at Time 1, CL2 = Closeness with Friend at Time 2, CS1 = Communication Satisfaction with Friend at Time 1, CS2 = Communication Satisfaction with Friend at Time 2, ACC = Parent Acceptance, CHA = Parent Challenge, EX1 = Extroversion at Time 1. [a] Degrees of freedom were adjusted using the Welch-Satterthwaite method due to violating the homogeneity of variance assumption. Negative t-values indicate higher means on the outcome of interest for women participants.

MAIN ANALYSES

A series of analyses were conducted to examine the friendship behavior of emerging adults, and to model a social-cognitive pathway from family and friendship to well-being. Model fit was assessed as previously described. A summary of model-fit statistics for all hypothesized path models is provided in Table 3.

Table 3

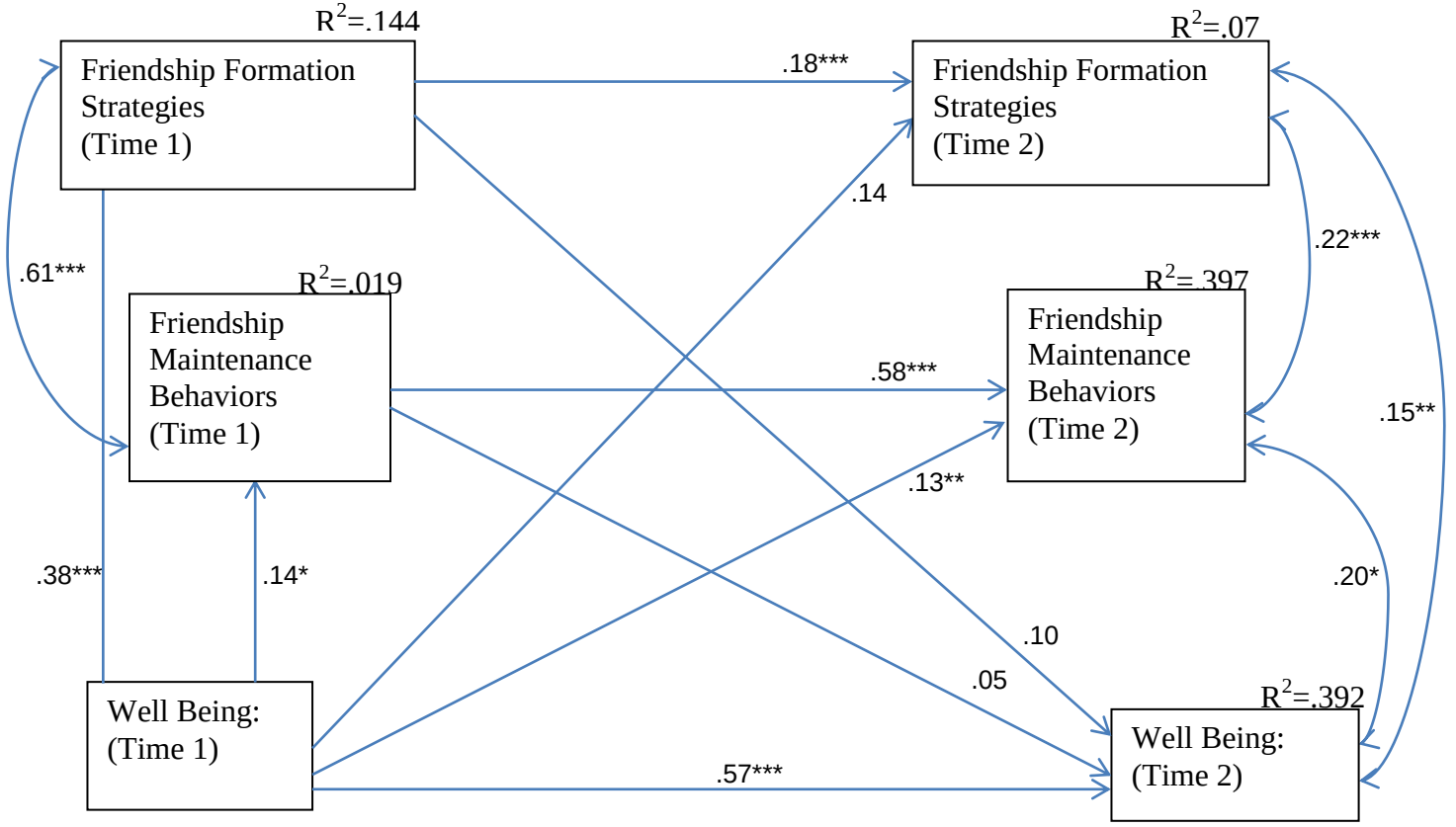
Summary of Model-fit Statistics for Structural Models

Model	χ^2	*Df*	*p*	CFI	SRMR	RMSEA	90%CI RMSEA	AIC	BIC
Well-Being	3.531	2	.17	.997	.018	.05	.000, .144	4409.190	4527.445
Relational Quality	40.158	14	.00	.971	.045	.08	.054, .114	5849.658	6033.366
Friend Check Time 1	14.103	10	.17	.978	.097	.07	.000, .156	1157.770	1236.565
Friend Check Time 2	26.101	9	.00	.886	.151	.16	.092, .237	1425.322	1505.005
Parent Confirmation	563.558	261	.00	.912	.053	.065	.058, .073	19367.708	19688.296

Friendship Behavior and Well-Being

It was predicted that emerging adults' friendship behavior would be associated with well-being at both Time 1 and Time 2. Further, it was projected that the relationship between well-being at Time 1 and well-being at Time 2 would be mediated by friendship behaviors at Time 1. The hypothesized model (see Figure 1) included seven variables: (a) intent to use friendship formation strategies reported at Time 1, (b) friendship formation strategies reported at Time 2, (c) friendship maintenance behaviors at Time 1, (d) friendship maintenance behaviors at Time 2, (e) well-being at Time 1, (f) well-being at Time 2, and (g) sex of the participant.

Figure 1. The Well-Being Pathway Model.



Note. *$p < .05$, **$p < .01$, ***$p < .001$. To improve visibility of hypothesized paths, the Biological Sex variable was removed from this figure.

The hypothesized well-being model demonstrated adequate model fit, [χ^2 (2, N = 271) = 3.531, $p < .17$, CFI = 0.99, SRMR = 0.018, RMSEA = 0.05 (90% CI: 0.000–0.144), AIC = 4409.19, and BIC = 4527.44; see Table 3]. Hypotheses 1 and 2 predicted that emerging adults' friendship behavior at Time 1 would be positively predicted by well-being at Time 1. As hypothesized, emerging adults' intent to use friendship formation strategies and their use of friendship maintenance behaviors at Time 1 was positively and significantly predicted by well-being ($\beta = .38$, $p < .001$ and $\beta = .14$, $p < .05$, respectively). Therefore, Hypotheses 1 and 2 were supported. Similarly, hypotheses 3 and 4 posited that emerging adults' friendship behavior at Time 2 would be positively associated with well-being at Time 2. The path model (see Figure 1) shows that emerging adults' well-being at Time 2 was positively and significantly associated with friendship formation strategies ($\beta = .15$, $p = .006$) and maintenance behaviors ($\beta = .20$, $p = .012$) at Time 2. Thus, Hypotheses 3 and 4 were supported as well.

Hypotheses 5 and 6 suggested that emerging adults' friendship behavior at Time 1 would partially mediate the relationship between well-being at Time 1 and well-being at Time 2. However, the indirect effects in the path analysis model (see Table 4) revealed that neither emerging adults' intent to use friendship formation strategies ($c' = .038$, $p > .05$) or use of friendship maintenance behaviors ($c' = .007$, $p > .05$) at Time 1 mediated (partially or fully) the relationship between well-being at Time1 and well-being at Time 2. Thus, Hypotheses 5 and 6 were not supported.

In sum, the results supported the hypothesized associations between friendship behavior and well-being, in particular the direct relationships between well-being and friendship formation strategies and maintenance behaviors at both Time 1 and Time 2.

Table 4

Mediating Friendship Behavior and Well-Being

Path	Direct Effect	Indirect Effect	Total Effect	95% CI
WB1, FF1, WB2	.57***	.038	.608	-.018, .095
WB1, FM1, WB2	.57***	.007	.577	-.018, .032

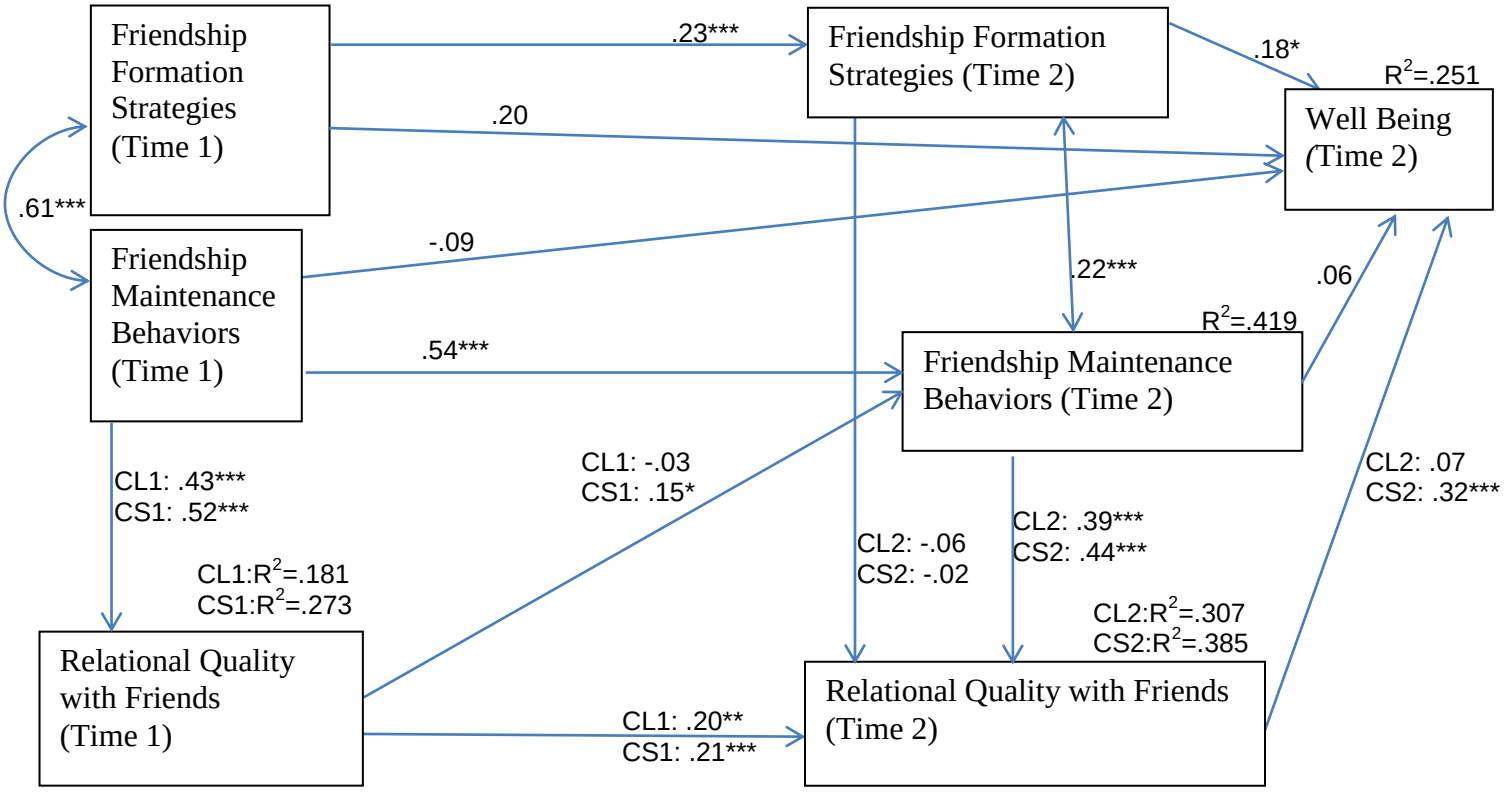
Note. *p < .05, **p < .01, ***p < .001. FF1 = Friendship Formation Strategies at Time 1, FM1 = Friendship Maintenance Behaviors at Time1, WB1 = Well-Being at Time 1, WB2 = Well-Being at Time 2.

Friendship Quality as a Mediator

The second set of hypotheses predicted that relational quality with friends would help to explain the association between friendship behavior and well-being. In addition to all variables present in the previous well-being model, the relational quality model included: (h) relational quality at Time 1, and (i) relational quality at Time 2. The relational quality model (see Figure 2) demonstrated adequate fit to the data, [χ^2 (14, N = 271) = 40.518, p < .00, CFI = 0.971, SRMR = .045, RMSEA = 0.084 (90% CI: 0.054, 0.114), AIC = 5849.658, and BIC = 6033.366; see Table 3].

Hypothesis 7 predicted that emerging adults' use of friendship maintenance behaviors at Time 1 would positively predict relational quality with friends at Time 1 (see Figure 2). This hypothesis was supported by the data ($\beta_{closeness}$ = .43 and $\beta_{satisfaction}$ = .52, ps < .001). Hypothesis 8 suggested that relational quality with friends at Time 1 would partially mediate the association between use of friendship maintenance behaviors at Time 1 and Time 2. The relational quality variable was operationalized using two measures (i.e., communication satisfaction and relational closeness). The results supported Hypothesis 8 with respect to communication satisfaction given the statistically significant indirect effect from friendship maintenance at Time 1 to friendship maintenance at Time 2 via communication satisfaction at Time 1 ($c'_{satisfaction}$ = .002, p < .05; see Table 5).

Figure 2. The Friendship Quality Pathway Model



Note. *p < .05, **p < .01, ***p < .001. CL1 = Closeness with Friend at Time 1, CL2 = Closeness with Friend at Time 2, CS1 = Communication Satisfaction with Friend at Time 1, CS2 = Communication Satisfaction with Friend at Time 2. Communication Satisfaction with Friends and Closeness with Friends were analyzed as separate constructs, but in effort to improve visibility of hypothesized paths the term Relational Quality with Friends is used here to comprise both variables. Toimprove visibility of hypothesized paths, the Biological Sex variable was removed from this figure.

In contrast, the indirect effect from friendship maintenance at Time 1 to friendship maintenance at Time 2 via relational closeness was not statistically significant ($c'_{closeness}$ = -.011, $p > .05$; see Table 5), suggesting a lack of support for Hypothesis 8 when using relational closeness as a measure of relational quality.

Table 5

Mediating Relational Quality and Well-Being

Path	Direct Effect	Indirect Effect	Total Effect	95% CI
FM1, CL1, FM2	.535***	-.011	.524	-.077, .050
FM1, CS1, FM2	.535***	.078*	.613	.019, .196
FF2, CS2, WB2	.176*	-.007	.169	-.011, .091
FF2, CL2, WB2	.176*	-.004	.172	-.040, .023
FM2, CS2, WB2	.064	.140**	.204	-.073, .293
FM2, CL2, WB2	.064	.027	.091	-.027, .132

Note. *$p < .05$, **$p < .01$, ***$p < .001$. FF2 = Friendship Formation Strategies at Time 2, FM1 = Friendship Maintenance Behaviors at Time1, FM2 = Friendship Maintenance Behaviors at Time 2, WB2 = Well-Being at Time 2, CL1 = Closeness with Friend at Time 1, CL2 = Closeness with Friend at Time 2, CS1 = Communication Satisfaction with Friend at Time 1, CS2 = Communication Satisfaction with Friend at Time 2.

Hypothesis 9 stated that the relational quality of friends at Time 2 would partially mediate the association between emerging adults' friendship formation strategies and well-being both measured at Time 2. Hypothesis 9 was not supported by the test of indirect effects, meaning that the path between friendship formation strategies and well-being was not partially mediated by relational quality at Time 2 ($c'_{closeness}$ = -.004 and $c'_{satisfaction}$ = -.007, ps > .05; see Table 5). Hypothesis 10 stated that the relational quality of friends at Time 2 would partially mediate the association between emerging adults' friendship maintenance behavior and well-being both measured at Time 2. Hypothesis 10 was partly supported. More specifically, the direct path from friendship maintenance behaviors to well-being at Time 2 ($\beta_{closeness}$ = .064, $p > .05$) and the indirect path from friendship maintenance behaviors to well-being via relational closeness at Time 2

($c'_{closeness}$ = .027, p > .05) were not statistically significant (see Table 5). Thus, friendship maintenance behaviors did not significantly predict well-being at Time 2; nor did relational closeness mediate (partially or fully) this relationship. On the other hand, communication satisfaction fully mediated the relationship between friendship maintenance behaviors and well-being at Time 2. Again, the direct path from friendship maintenance behaviors to well-being at Time 2 was not statistically significant ($\beta_{closeness}$ = .064, p > .05); however, the indirect path from friendship maintenance behaviors to well-being via communication satisfaction at Time 2 was statistically significant ($c'_{satisfaction}$ = .140, p < .01; see Table 5).

"Friend Check' on Friendship Quality

The third set of hypotheses was also related to friendship quality but involved both the participant and his/her chosen friend. This "friend-check" was calculated for the purpose of affirming the association between relational quality and well-being and exposing patterns of agreement or disagreement between members of the dyad. The analysis for hypotheses and research questions related to the "friend check" was conducted using a smaller sample (Time 1, $n = 75$; Time 2, $n = 72$), as not every participant secured responses to the friendship quality questionnaire from his/her chosen friend. As a preliminary analysis, correlations among the "friend check" variables were calculated at Times 1 and 2 (see Tables 6 and 7). To examine possible differences between participants who had secured responses to the friendship quality questionnaire versus participants without friend check responses, an independent samples *t* test was conducted on well-being at both Time 1 and Time 2. The *t* tests indicated that there were

no significant differences between these two groups on the well-being measure at Time 1 [$t(242) = -1.596$, $p > .05$] or at Time 2 [$t(239) = -.607$, $p > .05$].

Table 6

Correlations among Friend Check Variables at Time 1

	α	*M* (*SD*)	Sex	FF1	FM1	CL1-P	CS1-P	CL1-F	CS1-F
Sex	--	--	--						
FF1	.95	5.05 (.96)	.06	--					
FM1	.91	5.16 (.64)	.40**	.65**	--				
CL1-P	.91	5.62 (.64)	.20*	.26*	.49**	--			
CS1-P	.89	5.98 (.64)	.33**	.04	.29**	.24*	--		
CL1-F	.92	5.82 (1.01)	.29**	.08	.33**	.37**	.82**	--	
CS1-F	.85	5.95 (.65)	.34**	.05	.29**	.23*	.99**	.82**	--
WB1	.91	3.90 (.71)	-.17	.32**	-.01	.07	-.05	-.11	-.04

Note. *$p < .05$, **$p < .01$, ***$p < .001$. FF1 = Friendship Formation Strategies at Time 1, FM1 = Friendship Maintenance Behaviors at Time1, CL1-P = Closeness with Friend at Time 1-reported by Participant, CS1-P = Communication Satisfaction with Friend at Time 1-reported by Participant, CL1-F = Closeness with Friend at Time 1-reported by Friend, CS1-F = Communication Satisfaction with Friend at Time 1-reported by Friend, WB1 = Well-Being at Time 1. For sex, 0 = females and 1 = males.

Table 7

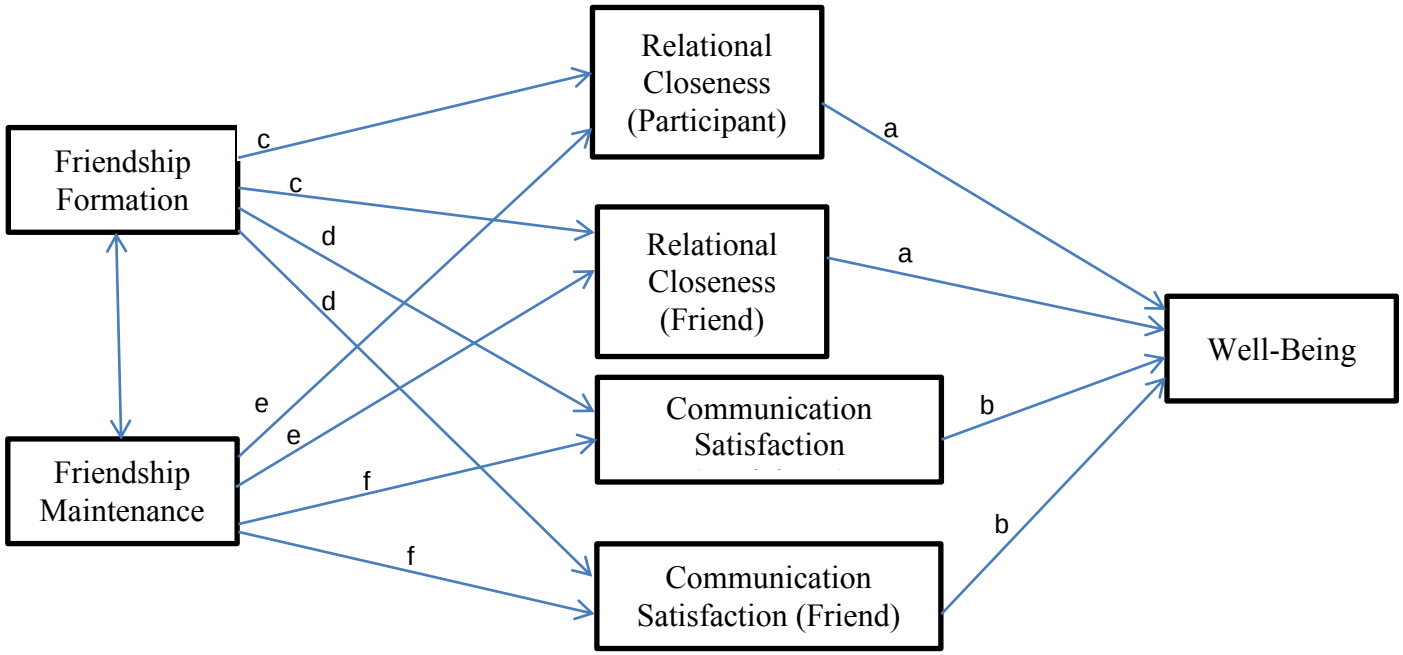
Correlations among Friend Check Variables at Time 2

	A	*M* (*SD*)	Sex	FF2	FM2	CL2-P	CS2-P	CL2-F	CS2-F
Sex	--	--	--						
FF2	.91	4.23 (3.20)	.09	--					
FM2	.93	4.95 (.74)	.16	.22*	--				
CL2-P	.92	5.87 (.90)	.26*	.14	.48**	--			
CS2-P	.92	5.87 (.78)	.27*	.24*	.63**	.74**	--		
CL2-F	.93	5.90 (1.00)	-.06	-.05	.21*	.41**	.24*	--	
CS2-F	.88	5.80 (.80)	.10	.03	.27*	.34**	.40**	.60**	--
WB2	.90	3.88 (.71)	-.02	.01	.33**	.33**	.40**	.09	.10

Note. *$p < .05$, **$p < .01$, ***$p < .001$. FF2 = Friendship Formation Strategies at Time 2, FM2 = Friendship Maintenance Behaviors at Time 2, CL2-P = Closeness with Friend at Time 2-reported by Participant, CS2-P = Communication Satisfaction with Friend at Time 2-reported by Participant, CL2-F = Closeness with Friend at Time 2-reported by Friend, CS2-F = Communication Satisfaction with Friend at Time 2-reported by Friend, WB2 = Well-Being at Time 2. For sex, 0 = females and 1 = males.

Preliminary analysis revealed that participants' relational closeness scores were positively and significantly correlated with their respective friends' relational closeness scores at Times 1 and 2. Further, participants' communication satisfaction scores were positively and significantly correlated with their respective friends' communication satisfaction scores at Times 1 and 2. It was posited (in Hypotheses 11 and 12) that agreement in partners' report of friendship quality would predict participants' report of well-being at both Time 1 and Time 2. Additionally, two research questions were asked to determine whether partners' report of friendship quality mediates the relationship between friendship work (i.e., friendship formation strategies and friendship maintenance) and well-being and that these mediating relationships are similar for participants and friends. To test the "friend check" hypotheses, a mediational path analysis model was employed in which constraints were imposed upon parameters of interest (see Figure 3). More specifically, to test Hypotheses 11 and 12, unstandardized direct path values from friendship quality variables (i.e., relational closeness and communication satisfaction) to well-being were constrained to be equal for participants and their respective friends (represented by paths labeled as "a" and "b" in Figure 3). To address research questions 1 and 2, additional unstandardized path values were constrained to be equal for participants and their respective friends (represented by paths labeled as "c," "d," "e," and "f" in Figure 3). Modification indices or Lagrange Multiplier tests were assessed after analyzing the constrained models at Times 1 and 2 in order to evaluate if constraints should be released and estimated without constraints imposed for participants and friends. That is, large modification indices (greater than or equal to 3.84 which corresponds to a significant chi-square decrease with 1 degree of freedom at $\alpha = .05$) would indicate that the constrained parameters of interest ("a" through "f") are significantly different for participants as compared to their respective friends.

Figure 3. The Hypothesized "Friend Check" Model

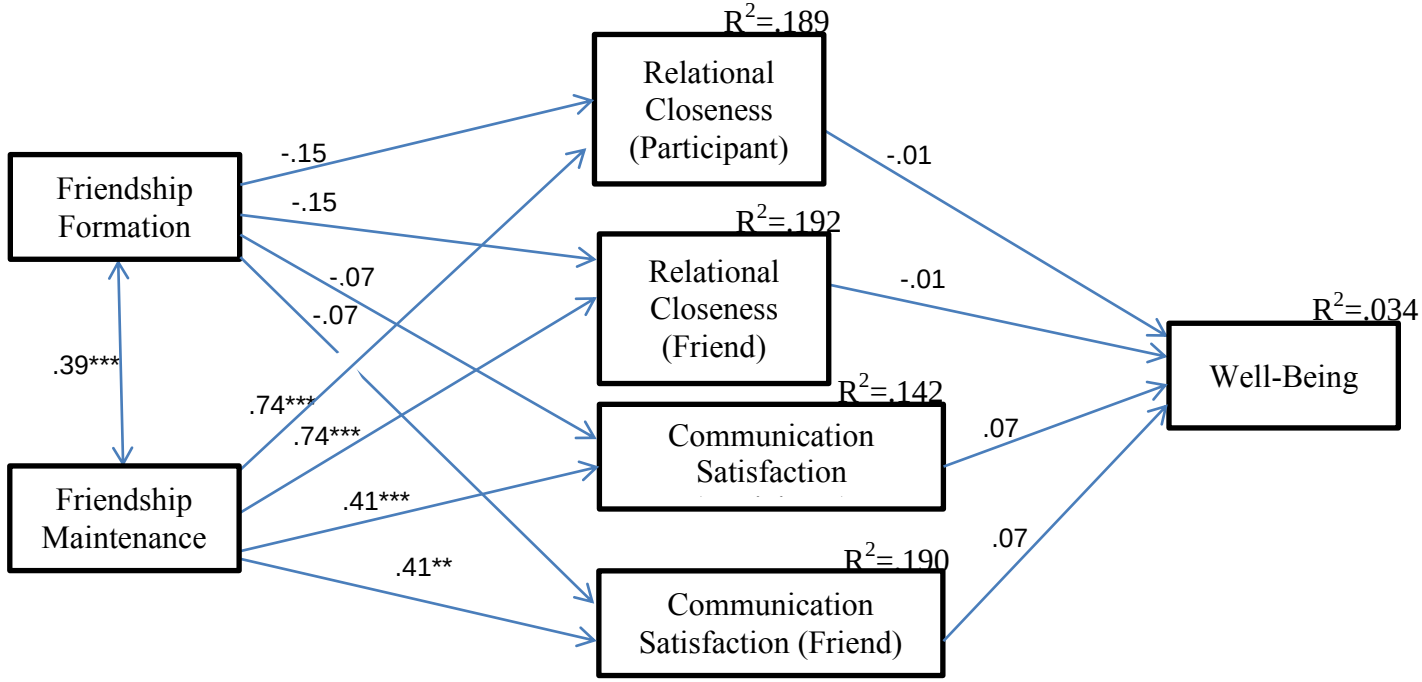


Note. Unstandardized direct path values were constrained to be equal for participants and their respective friends, and have been labeled (i.e., "a" through "f"). To improve visibility of hypothesized paths, the Biological Sex variable was removed from this figure.

The hypothesized path model for the "friend check" at time 1 demonstrated adequate fit to the data, [χ^2 (10, N = 75) = 14.103, p < .01, CFI = .978, SRMR = 0.097, RMSEA = 0.074 (90% CI: 0.000, 0.156), AIC = 1157.770, and BIC = 1236.565; see Table 3]. Likewise, the model fit adequately at Time 2 [χ^2 (9, N = 72) = 26.101, p < .00, CFI = .886, SRMR = 0.151, RMSEA = 0.162 (90% CI: 0.092, 0.237), AIC = 1425.322, and BIC = 1505.005; see Table 3]. Agreement in partners' report of friendship quality, for both relational closeness and communication satisfaction, was supported at Time 1 because the modification indices did not indicate that the constrained paths ("a" and "b") should be released. Thus, the direct effects of relational closeness and communication satisfaction on well-being appear to be the same for participants and their respective friends at Time 1 (B = .091 and B = -.037, respectively, ps > .05; see Figure 4).

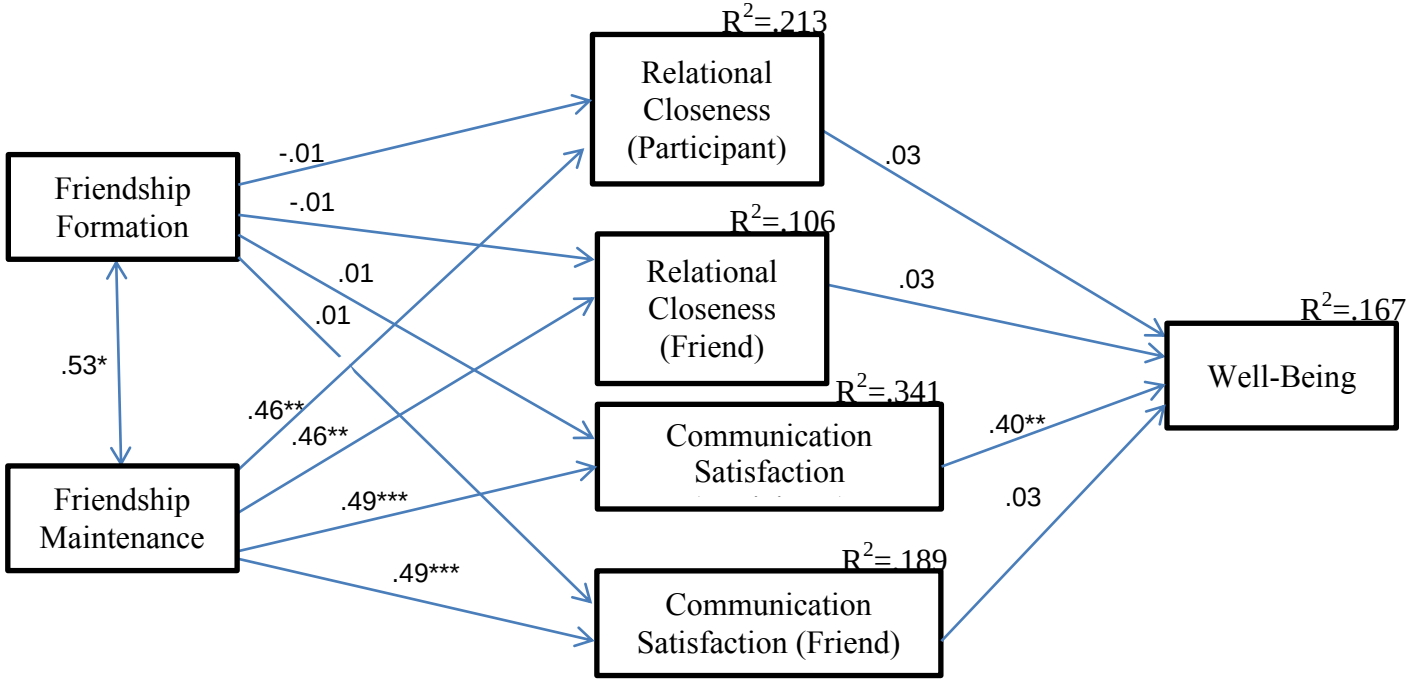
While the direct effect estimates from the friendship quality variables to well-being at Time 1 indicate agreement between participant and friend responses, these direct effects were not statistically significant. At Time 2, agreement between partners was only found for the direct effect of relational closeness on well-being (B = .026, p > .05). Again, while the direct effect estimate from relational closeness to well-being at Time 2 indicates agreement between participant and friend responses, the direct effect was not statistically significant. The modification index associated with the constraint for communication satisfaction on well-being at Time 2 was larger than 3.84, indicating that this path is significantly different for participants and their respective friends (see Figure 3, constraint "b"). As such, the constraint initially was released and this model parameter was estimated for participants and their respective friends without constraints.

Figure 4. The "Friend Check" Pathway Model at Time 1



Note. *p < .05, **p < .01, ***p < .001. To improve visibility of hypothesized paths, the Biological Sex variable was removed from this figure.

Figure 5. The "Friend Check" Pathway Model at Time 2



Note. *p < .05, **p < .01, ***p < .001. To improve visibility of hypothesized paths, the Biological Sex variable was removed from this figure.

To elaborate, the direct effect of communication satisfaction on well-being was statistically significant for the participants (B = .397, $p < .001$) but it was not statistically significant for the friends (B = .026, p > .05; see Figure 5). Even though the overall fit of the "friend check" models were considered adequate, Hypotheses 11 and 12 were not supported at Time 1 or Time 2 given the lack of statistically significant (and constrained) direct effects from relational quality variables (i.e., relational closeness and communication satisfaction) to well-being.

With respect to research questions 1 and 2, the indirect effects of friendship work variables (friendship formation and friendship maintenance) on well-being via friendship quality (relational closeness and communication satisfaction as reported by participants and friends) were examined. While the lack of large modification index values associated with path constraints suggests that there was general agreement between participants and friends, the lack of statistically significant indirect effects indicates that relational quality (i.e., relational closeness and communication satisfaction) did not mediate the relationship from friendship work (i.e., friendship formation strategies and maintenance behaviors) to well-being in the "friend check" model at Time 1 or at Time 2. The indirect effects for Time 1 and Time 2 are provided in Table 8 and Table 9, respectively.

Table 8

Mediating Friendship Behavior and Well-Being at Time 1

Path	Direct Effect	Indirect Effect	Total Effect	95% CI
FF1, CS1, WB1	.42***	-.005	.276	-.057, .010
FF1, CL1, WB1	.42***	.001	.421	-.034, .043
FM1, CS1, WB1	-.43*	.030	-.400	-.058, .204
FM1, CL1, WB1	-.43*	-.007	-.437	-.169, .121

Note. *$p < .05$, **$p < .01$, ***$p < .001$. All pathways were constrained at Time 1. FF1 = Friendship Formation Strategies at Time 1, FM1 = Friendship Maintenance Behaviors at Time1, WB1 = Well-Being at Time 1, CL1 = Closeness with Friend at Time 1, CS1 = Communication Satisfaction with Friend at Time 1.

Table 9

Mediating Friendship Behavior and Well-Being at Time 2

Path	Direct Effect	Indirect Effect	Total Effect	95% CI
FF2, CSP, WB2	-.02	.004	-.016	-.037, .072
FF2, CSF, WB2	-.02	-.001	-.021	-.038, .030
FF2, CL2, WB2	-.02	.000	-.020	-.026, .025
FM2, CSP, WB2	.14	.172	.312	-.029, .391
FM2, CSF, WB2	.14	-.041	.139	-.167, .081
FM2, CL, WB2	.14	.008	.148	-.062, .078

Note. *$p < .05$, **$p < .01$, ***$p < .001$. At Time 2, the constraint on the Communication Satisfaction variable was released, resulting in additional indirect pathways. FF2 = Friendship Formation Strategies at Time 2, FM2 = Friendship Maintenance Behaviors at Time 2, WB2 = Well-Being at Time 2, CL2 = Closeness with Friend at Time 2, CSP = Communication Satisfaction with Friend reported by Participant, CSF = Communication Satisfaction with Friend reported by Friend.

Parent Confirmation as a Predictor of Friendship Behavior

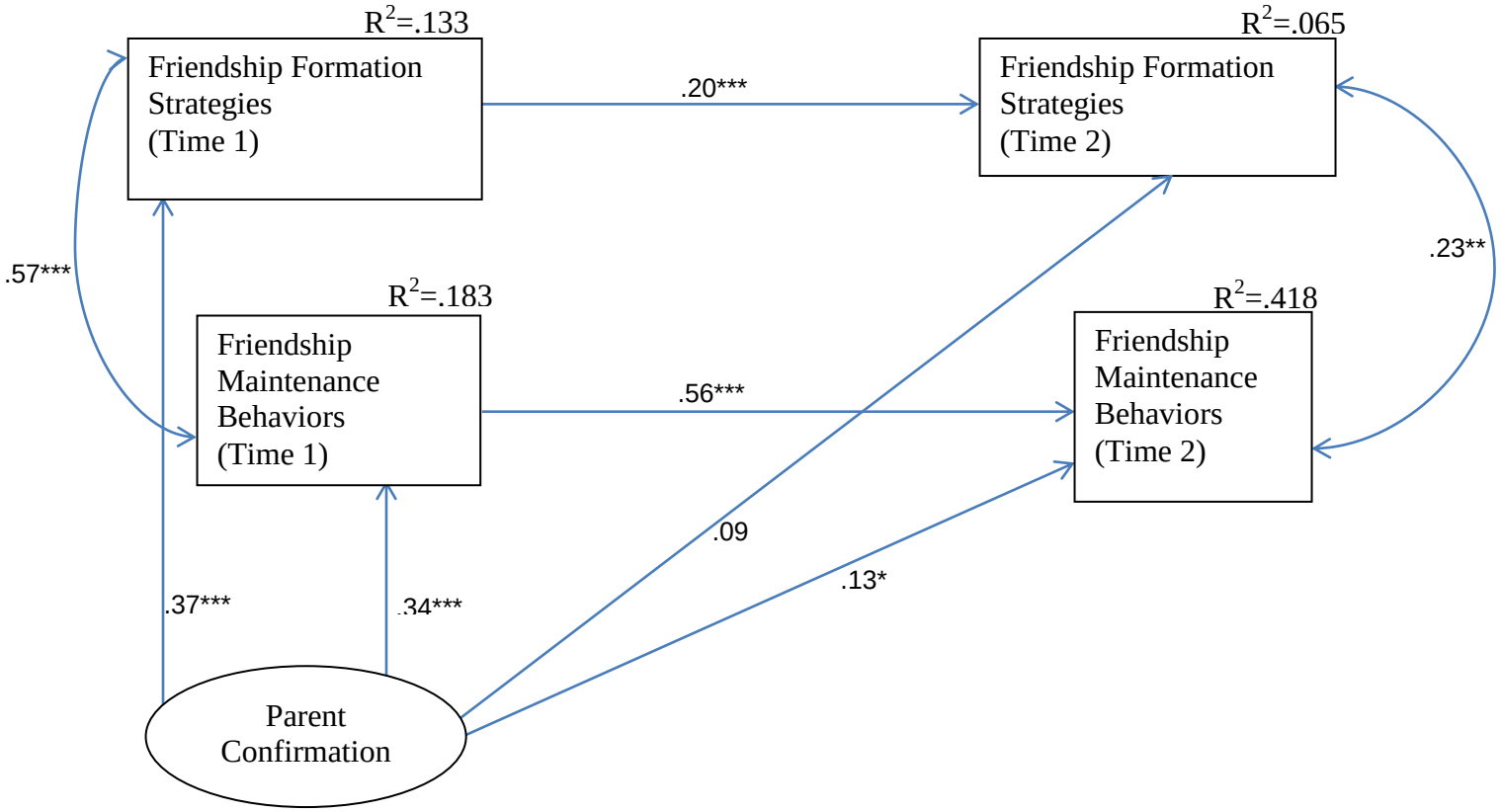
The final set of hypotheses predicted associations between parent confirmation and emerging adults' friendship behaviors. The hypothesized parent confirmation model included six variables: (a) parent confirmation, a latent variable that includes measures (aa) parent acceptance and (ab) parent challenge, (b) intent to use friendship formation strategies at Time 1, (c) friendship formation strategies at Time 2, (d) friendship maintenance behaviors at Time 1, and (e) friendship maintenance behaviors at Time 2. It was predicted that emerging adults' report of parent confirmation at Time 1 would positively predict emerging adults' intent to use friendship formation strategies and use of friendship maintenance behaviors at Time 1 and Time 2 (Hypotheses 13 and 14, respectively). Further, it was proposed that emerging adults' intent to use friendship formation strategies at Time 1 would partially mediate the relationship between parent confirmation, which was only collected at Time 1, and use of friendship formation strategies reported at Time 2 (Hypothesis 15). Likewise, it was proposed that emerging adults' use of friendship maintenance behaviors at Time 1 would partially mediate the

relationship between parent confirmation (only collected at Time 1) and use of friendship maintenance behaviors reported at Time 2 (Hypothesis 16).

Both dimensions of parent confirmation (i.e., parent acceptance and parent challenge) were found to be significantly and positively correlated with friendship formation strategies and maintenance behaviors at both Time 1 and Time 2, with correlations ranging from .14 to .36 (see Table 1). Results of the hypothesized parent confirmation model are shown in Figures 6 and 7.

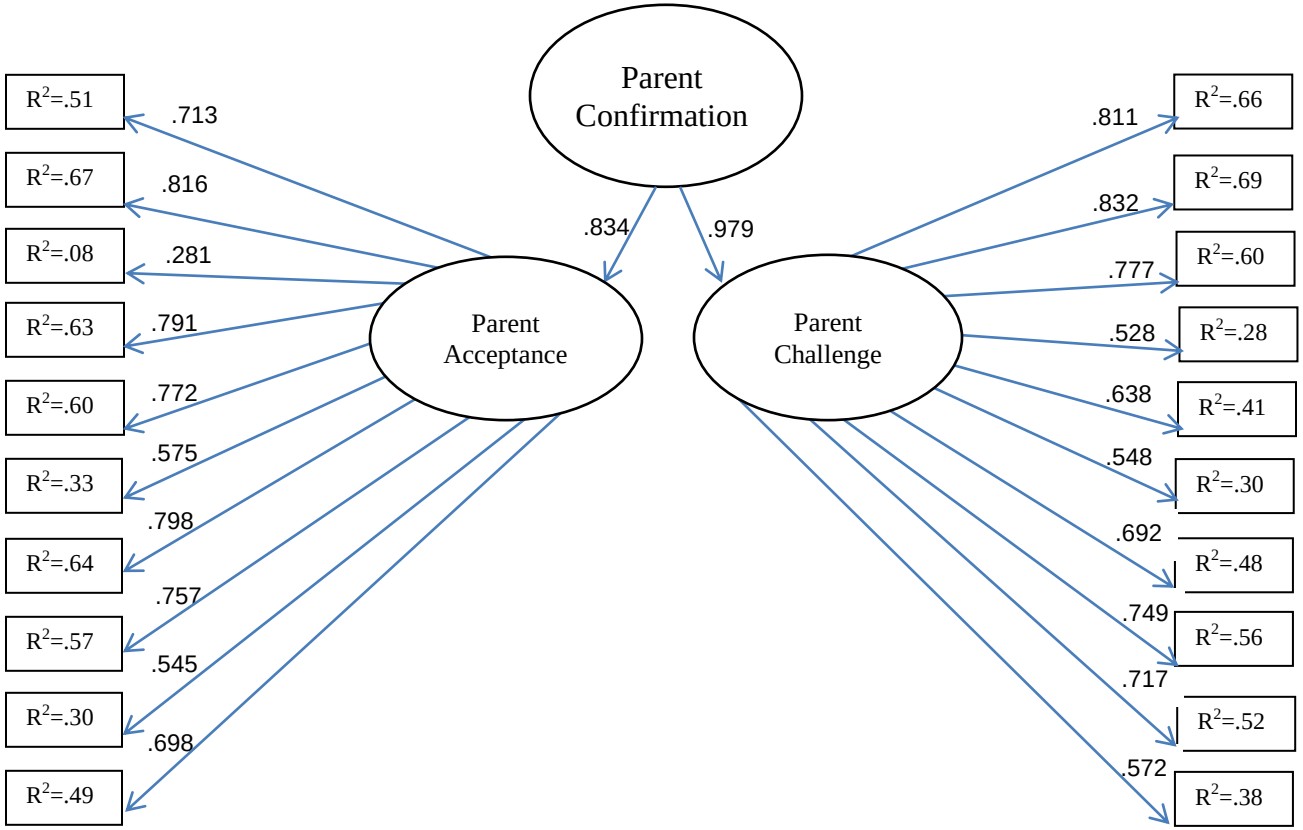
The hypothesized parent confirmation model demonstrated adequate fit to the data, [χ^2 (261, N = 271) = 563.558, p < .00, CFI = .912, SRMR = 0.053, RMSEA = 0.065 (90% CI: 0.058, 0.073), AIC = 19367.708, and BIC = 19688.266; see Table 3]. Figure 6 demonstrates that parent confirmation significantly predicted friendship formation and friendship maintenance at Time 1 (β = .37 and β = .34, respectively, ps > .00), supporting Hypotheses 13. At Time 2, parent confirmation significantly predicted friendship maintenance behaviors but not friendship formation strategies at Time 2 (β = .13 and β = .09, respectively, ps > .05), partially supporting Hypotheses 14.

Figure 6. The Parent Confirmation Pathway Model



Note. *$p < .05$, **$p < .01$, ***$p < .001$. To improve visibility of hypothesized paths, the Biological Sex variable was removed from this figure. Acceptance and Challenge measurement models are shown on the next page.

Figure 7. The Measurement Model of Parent Confirmation



Given the significant indirect effects of parent confirmation on friendship formation strategies reported at Time 2 via friendship formation strategies reported at Time 1 (c' = .072, p > .01), Hypothesis 15 was supported (see Table 10). Likewise, the significant indirect effect (c' = .192, p < .01) of parent confirmation on friendship maintenance at Time 2 via friendship maintenance at Time 1 indicated that friendship maintenance behaviors reported at Time 1 partially mediated the relationship between parent challenge and friendship maintenance reported at Time 2 (see Table 10), supporting Hypothesis 16.

Table 10

Mediating Parent Confirmation and Friendship Behavior

Path	Direct Effect	Indirect Effect	Total Effect	95% CI
PC, FF1, FF2	.09	.072**	.162	.088, .181
PC, FM1, FM2	.13*	.192**	.322	.094, .234

Note. *p < .05, **p < .01, ***p < .001. PC = Parent Confirmation, FF1 = Friendship Formation Strategies at Time 1, FF2 = Friendship Formation Strategies at Time 2, FM1 = Friendship Maintenance Behaviors at Time1, FM2 = Friendship Maintenance Behaviors at Time 2.

Chapter 5: Discussion and Future Directions

The present study was conducted to examine friendship among emerging adults and to establish a social-cognitive pathway from family communication and friendship behavior to well-being. The results of the current investigation provide several new insights into how emerging adults' friendship behaviors contribute to their overall well-being and how parent confirmation influences these behaviors. First, the data indicated that at Time 1 and Time 2, emerging adults who were engaged in friendship work (i.e., formation strategies and maintenance behaviors) concurrently experienced greater well-being than those individuals not performing friendship work, lending credence to the supposition that engaging in friendship work is positively associated with emerging adults' well-being. Second, in addition to the finding that individuals' friendship work contributed to their overall well-being, it was found that relational quality partly mediated this link, a discovery that helps to explain *how* friendships actually make people happier. Third, in line with confirmation theory, emerging adults' propensity to engage in friendship work was predicted by communication in the parent-child relationship, or more specifically, by the confirmation that emerging adults reported receiving from their parents. Cumulatively, the findings of the current study indicate that the friendship work of emerging adults may be both a catalyst for well-being and a consequence of parent-child communication.

FRIENDSHIP WORK PREDICTED WELL-BEING

Since happiness is achieved through participation in satisfying social relationships (Diener & Seligman, 2002), it stands to reason that emerging adults' well-being is linked to their friendships. Previous research has indicated that individuals who can name several close friends with whom they share their intimate concerns are healthier and happier than people without such friendships (Cohen, Sherrod, & Clark, 1986; House, Landis, & Umberson, 1988), but this offers little explanation for *how* friendships actually impact well-being. Given that having close friends is linked to personal happiness (Taylor, Chatters, Hardison, & Riley, 2001) and that relationships are constituted in communication (Baxter, 2004), it was proposed here that engaging in communicative behaviors that form and maintain friendships would predict participants' well-being (Hypotheses 1-4). Results revealed that, at both Time 1 and Time 2, emerging adults who engaged in friendship work (i.e., formation strategies and maintenance behaviors) experienced greater well-being than those not engaged in friendship work. Following the hypothesis that friendship work is associated with individuals' well-being, it was proposed that emerging adults' friendship work at Time 1 would partially mediate the relationship between well-being at Time 1 and well-being at Time 2 (Hypothesis 5 & 6). The results, however, indicated that this was not the case. Ultimately, while the indirect estimates in the pathway from friendship behavior to well-being were found to be insignificant, it was discovered that emerging adults' use of friendship formation strategies and maintenance behaviors had a direct and positive association with individuals' well-being. Thus, even though friendship work did not predict well-being

over time, it was concurrently associated with emerging adults' well-being. This is an important finding for this study because it highlights that a personal state of well-being may actually be more stable than previously considered. The correlation matrix (Table 1) and well-being path model (Figure 1) indicate that friendship work variables at both Time 1 and Time 2 were positively and significantly correlated with well-being at Time 1 and Time 2; even more closely correlated, however, is the association between well-being at Time 1 and well-being at Time 2. While emerging adults' friendship work is clearly linked to their well-being, the significant predictor of well-being at Time 2 was well-being at Time 1. Given that participants engaged in friendship work at Time 1 were more likely to engage in friendship work at Time 2, it is possible that the well-being they experienced at Time 1 was sustained over time in accordance with their friendship work.

RELATIONAL QUALITY WITH FRIENDS WAS IMPORTANT TO FRIENDSHIP WORK AND WELL-BEING

The study of happiness or well-being is incredibly complex. Beyond the general realization that happy people have more friends (Cohen, Sherrod, & Clark, 1986; House, Landis, & Umberson, 1988), the role that social relationships play in persons' well-being is varied. Hence, the findings from the relational quality path model are especially important to this investigation, as they provide additional explanation for *how* social relationships are associated with well-being. The current study argued that emerging adults' friendship work would contribute to well-being insofar as these practices yielded higher quality friendships. Specifically, it was expected that relational quality (i.e.,

relational closeness and communication satisfaction) with friends would partially mediate the association between friendship work (i.e., formation strategies and maintenance behaviors) and overall well-being. Supporting this notion, it was found that emerging adults' use of friendship maintenance behaviors at Time 1 was positively associated with relational quality at Time 1 (Hypothesis 7), suggesting that participants who engaged in friendship maintenance behaviors had higher quality relationships (i.e., relational closeness and communication satisfaction) with their friends than participants not performing maintenance behaviors. Further, it was hypothesized that emerging adults' relational quality with friends at Time 1 would mediate the association between use of friendship maintenance behavior at Time 1 and use of friendship maintenance behaviors at Time 2 (Hypothesis 8). The results showed that one of the constructs for relational quality, communication satisfaction, did in fact mediate the relationship from friendship maintenance behaviors at Time 1 to Time 2. Taken together, the findings showed that emerging adults' use of friendship maintenance behaviors at Time 1 was associated with the relational quality (i.e., relational closeness and communication satisfaction) they had with their friends, and that one of the constructs for relational quality (i.e., communication satisfaction) measured at Time 1 was a significant predictor of participants' use of maintenance behaviors at Time 2.

Additionally, it was expected that the use of friendship formation strategies and maintenance behaviors would positively predict persons' relational quality with friends and that, in turn, relational quality with friends should predict emerging adults' overall well-being (Hypothesis 9 & 10, respectively). The results revealed, however, that

emerging adults' report of relational quality with friends at Time 2 *did not* mediate (either partially or fully) the association between friendship formation strategies and well-being at Time 2, failing to support Hypothesis 9. On the other hand, Hypothesis 10 did achieve support, but only partly; one of the constructs of relational quality (i.e., communication satisfaction) *fully* mediated the path from friendship maintenance at Time 1 to well-being at Time 2. In exploring how emerging adults' relational quality and well-being was linked to their friendship work an inconsistent pattern between the constructs (i.e., friendship formation strategies and maintenance behaviors) emerged: emerging adults' use of maintenance behaviors was directly associated with their relational quality but not their well-being, whereas the opposite was true for the use of formation strategies. Engaging in friendship formation strategies was positively and directly related to emerging adults' well-being but not to their relational quality.

The differences in how friendship work (i.e., formation strategies and maintenance behaviors) associated with relational quality and well-being can be explained by literature regarding individuals' happiness and associated aspects of social relationships. Early studies on individual happiness indicated the importance of (a) making friends easily and (b) being satisfied with one's friends (Wilson, 1967). The current investigation found that emerging adults engaged in friendship formation strategies were happier regardless of friendship quality, a finding that is in line with Wilson's first assertion—people who make friends easily are happier than those who do not make friends easily. While engaging in friendship formation strategies was directly associated with well-being, emerging adults' use of maintenance behaviors was

associated with their well-being insofar as they perceived that communication with their friend was satisfying, a finding that can be traced to Wilson's second assertion. In line with Wilson (1967), Diener and Seligman (2002) emphasized that individual happiness is associated with being in *satisfying* social relationships, signifying that not all relationships are satisfying and unsatisfying relationships are not likely to associate positively with individual happiness. Dindia (2003) similarly argued that relational maintenance itself does not ensure relational satisfaction.[1] This line of reasoning challenges the idea that merely maintaining a friendship would be positively associated with individual well-being and begins to explain why experiencing communication that was satisfying fully mediated the association between emerging adults' friendship maintenance behaviors and their well-being (Figure 2). Taken together, the findings from the relational quality path followed Wilson's (1967) work and indicated that using friendship formation strategies and engaging in maintenance behaviors that yielded satisfying friendships were critical to emerging adults' well-being.

[1] Evidence of this can be seen from literature on hurtful communication; a recent study suggests that some relationships persist even though they are considered hurtful and are associated negatively with individuals' self-esteem (Vangelisti, Maguire, Alexander, & Clark, 2007).

FRIENDS AGREE ON RELATIONAL QUALITY

To advance the understanding of relational quality with friends as associated with persons' well-being, reports of relational quality from study participants and their chosen friends were collected and analyzed. This part of the study is referred to here as a "friend check." Analyzing reports of relational quality experienced within a given friendship from both the participants and their chosen friends provided useful insights and revealed a few trends worth mentioning here.

First, it was discovered that emerging adults in this study generally agreed with their chosen friend about the quality of their friendship. For both participants and their chosen friends, relational quality was measured using two constructs—communication satisfaction (Hecht, 1978) and relational closeness (Vangelisti & Caughlin, 1997). There was statistically significant agreement between participants and friends on both constructs (i.e., relational closeness and communication satisfaction) at Time 1, but only for relational closeness at Time 2. In other words, participants and their chosen friends reported similarly on the degree to which they felt close with one another at both time points; in reporting the degree to which communication with their friend was satisfying, however, participants and their chosen friends did not agree at Time 2.

Second, even though agreement was found between friends, results from the "friend check" models showed that the direct effects from relational quality to well-being were mostly nonsignificant, failing to support Hypothesis 11 and 12. None of the indirect effects between friendship maintenance and well-being via relational quality in the "friend check" model at Time 1 and Time 2 were significant, indicating that relational

quality did not mediate the association from friendship work to well-being in the "friend check" models. The lack of statistically significant indirect effects may be explained partly by the lack of significant direct effects in the path models (Figures 4 and 5). The only significant direct effect from relational quality to well-being in the "friend check" path models was from communication satisfaction to well-being at Time 2 (Figure 5), which also happens to be the only path at either Time 1 or Time 2 that failed to achieve statistically significant agreement between participant and friend report. In other words, even though participants and their chosen friends did not agree on the communication satisfaction they experienced at Time 2, participants' reports of communication satisfaction was significantly associated with their own well-being. This does not suggest, however, that well-being is not linked to relational quality with friends. On the contrary, evidence from the relational quality model (Figure 2) and the "friend check" model at Time 2 (Figure 5) indicate that participants' report of communication satisfaction was significantly associated with their own well-being. However, based on findings from the "friend check," there is evidence to suggest that individuals' well-being is more closely aligned with *their own* perception of relational quality (i.e., communication satisfaction) than with reports of relational quality from their actual friends, a finding that debunks Hypotheses 11 and 12.

The existing literature is useful in explaining this finding. A host of studies (Kenney & Acitteli, 2001; Levinger & Breedlove, 1966; Murstein, 1970; Sillars, 1985) have explored the nature of partner agreement and interpersonal perceptions, with considerable attention given to personality attributes. When it comes to interpersonal

perception and relational satisfaction, Sillars and Scott (1983) discovered that ignorance can be bliss for some. Similarly, the "friend check" path models (Figure 4 and 5) indicated that disagreement between friends was largely due to participants' perceiving that communication with their friends was more satisfying than their friends reported. The possibility that "ignorance is bliss" may explain why participants' report of communication satisfaction at Time 2 was (a) inflated when compared to their friends' reports at Time 2 and (b) associated positively with their own well-being, despite the lack of agreement with their chosen friend.

Additionally, two key methodological factors may have contributed to this finding. First, participants chose which friends they would ask to participate in the study with them, an act which likely demonstrates a perceived level of closeness and satisfaction with that particular friend, which may or may not be reciprocated. This may explain why some participants felt more satisfied than their friend about the communication that characterized their friendship. Second, participants chose up to three friends to report about and to ask for their participation in the study with them. The advantage of this approach was that it generated greater probability that participants would have a match for the "friend-check," although in some cases the second or third friend chosen actually participated. Thus, the report of friendship quality may not have always involved their best friend but, instead, may have been the second or third closest friend that the participant had made at college by that point. Since this was during the first semester of college, it is quite possible that a participant's second or third closest friendship made on campus at this point had little bearing on their well-being. In this

case, it would make sense that some "friend checks" demonstrated that friends agree on the friendship quality variables yet those variables were not positively associated with participants' well-being.

The third notable finding from the "friend-check" path model is in regard to friendship work (i.e., formation strategies and maintenance behavior). At Time 1, emerging adults' friendship formation strategies were directly and significantly associated with well-being but not with relational quality (i.e., relational closeness and communication satisfaction). At both Time 1 and Time 2, emerging adults' maintenance behaviors were directly and significantly associated with relational quality (i.e., relational closeness and communication satisfaction) but not well-being. This trend is similar to findings from the relational quality model (Figure 2), in that the two forms of friendship work (i.e., formation strategies and maintenance behaviors) were associated uniquely with well-being. Thus, the "friend check" path model offers further evidence that individual happiness is directly associated with making friends easily and being satisfied with one's friends (Wilson, 1967), and that relational maintenance does not itself ensure relational satisfaction (Dindia, 2003). Whereas persons' use of friendship maintenance was not directly associated with their well-being in the relational quality and "friend check" path models, prior research may explain why it is that participants' well-being was directly linked to their report of friendship formation strategies. Unlike maintaining established friendships, newly formed friendships sometimes experience a honeymoon-like phase (Berndt & Hanna, 1995; Furman, 1984) during which individuals' well-being

is likely benefitted by the lack of negative interactions or challenges that may accompany established relationships (Hanna & Berndt, 1995).

PARENT CONFIRMATION PREDICTED FRIENDSHIP BEHAVIOR

In addition to examining the outcomes associated with emerging adults' friendship behaviors, the current study considered factors that may predict whether individuals actively form and maintain friendships. Scholars have previously highlighted the parent-child relationship as being especially important for young person's growth and socialization (Gitelson & McDermott, 2006; Peterson & Hann, 1999), and recent findings suggest that young persons' self-development and communicative behaviors are linked to the confirmation that they receive from parents (Dailey, 2006, 2008, 2009; Ellis, 2002; Schrodt, Ledbetter, & Ohrt, 2007; Sieburg, 1985). Given that children's' socialization is consistently linked to the parent-child relationship, the present investigation explored the role of confirmation from parents in regard to emerging adults' use of friendship formation strategies and maintenance behaviors. Specifically, it was predicted that emerging adults' report of parent confirmation at Time 1 would be positively associated with emerging adults' intent to use friendship formation strategies and use of friendship maintenance behaviors at Time 1 (Hypothesis 13) and would predict their use of friendship formation strategies and maintenance behaviors at Time 2 (Hypotheses 14).

The results indicated a significant association between parent confirmation and friendship work variables. As the path model (Figure 6) indicated, confirmation from parents predicted participants' friendship work at Time 1, both the use of maintenance

behaviors as well as the intent to use friendship formation strategies, supporting Hypothesis 13. At Time 2, however, parent confirmation significantly predicted friendship maintenance behaviors but not friendship formation strategies. That parent confirmation did not predict participants' use of friendship formation strategies at Time 2 was surprising, given that parent confirmation predicted participants' *intent to use* friendship formation strategies at Time 1. In other words, emerging adults' use of friendship formation strategies at Time 2 was predicted by the intent to use those strategies at Time 1 but was not directly associated with parent confirmation. Because the association from parent confirmation to friendship formation strategies at Time 2 was nonsignificant and *fully* mediated (not partially mediated, as had been hypothesized) by emerging adults' intent to use friendship formation strategies at Time 1, Hypothesis 15 was only partially supported. The link between parent confirmation and friendship maintenance behaviors, however, operated as had been hypothesized; emerging adults' use of friendship maintenance behaviors at Time 1 partially mediated the relationship between parent confirmation and use of friendship maintenance behaviors at Time 2, and Hypothesis 16 was fully supported.

A closer look at literature regarding parent-child communication and friendship behaviors may explain the differences in how parent confirmation associated with the friendship work variables (i.e., formation strategies and maintenance behaviors). Research has already highlighted the importance of parental confirmation to children's mental health and well-being (Schrodt, Ledbetter, & Ohrt, 2007). In light of this, it is possible that some participants felt perfectly content in the existing relationship

established with their confirming parent and preferred to engage with their parent rather than stepping out and forming new friendships. However, even if that were the case, it is unlikely that parent confirmation would predict the use of friendship maintenance behaviors but stifle the use of friendship formation strategies. A more likely explanation may be that parent confirmation associated with friendship work variables (i.e., formation strategies and maintenance behaviors) in unique ways. In particular, the way that parent confirmation was operationalized here is more similar to friendship maintenance behaviors than friendship formation strategies. In looking at the measures for friendship maintenance (Oswald, Clark, & Kelly, 2004) and parent confirmation (Challenge Scale, Dailey, 2008; Acceptance Scale, Schaeffer, 1965), it is obvious that many of the items focus on similar relational behaviors (e.g., the Friendship Maintenance Scale asks participants, "How often do you and your close friends let each other know you accept them for who they are?" and, similarly, the Acceptance Scale of parent confirmation asks about whether parents "accepted my feelings or views even when s/he disagreed with me."). The measure of Friendship Formation Strategies (McEwan & Guerrero, 2010) is not altogether different, except that, unlike the friendship maintenance measure which is a report of behaviors both at Time 1 and Time 2, the formation strategies measure asks that respondents report their intent to engage in formation strategies at Time 1 and their actual use of those strategies at Time 2. Thus, even though the intent to use formation strategies at Time 1 (e.g., how likely are you to "discuss future career plans with others") might seem very normal and commonplace, especially to those emerging adults who have been confirmed by their parents, employing those same strategies at Time 2 (e.g., how

often did you "discuss my future career plan with others") may for some be more intimidating or taxing than initially planned.

Altogether, the results from the parent confirmation path model add to a growing body of research that suggests parent confirmation is closely associated with young adults' development (Dailey, 2006, 2008, 2009; Schrodt, Ledbetter, & Ohrt, 2007). Scholars have shown how parent-child communication is related to young persons' psychosocial adjustment (Dailey, 2009) and self-esteem (Schrodt, Ledbetter, & Ohrt, 2007), and a recent study by Ledbetter (2009) suggests that parents foster environments in which young adult children can experience healthy social development. More than being associated with psychosocial outcomes, however, the findings from the current investigation demonstrated that confirmation from parents was positively linked to emerging adults' friendship work and well-being after leaving the home. Participants that had been confirmed by their parents were more likely to form and maintain friendships in college than their peers, a finding that suggests how confirmation in the parent-child relationship is a critically important factor for the development of emerging adults as they leave home and enter a new environment with the possibility for new relationships. This extension of the existing research is useful not only in further conceptualizing the critical nature of parent confirmation as a lens through which scholars examine the parent-child relationship, but also as a means for understanding *how* this relationship may pave the way for children's well-being far beyond the home.

Future Directions and Limitations

Researchers who study the association between individuals' social relationships and well-being frequently emphasize only the size of a person's social network. To build upon the notion that social relationships are associated with well-being (Diener & Seligman, 2002), the current investigation instead considered how parent-child communication and friendship behaviors pave a path toward relational quality and, ultimately, personal well-being. Even here, though, considerable challenges, limitations, and opportunities for future study have emerged.

First, there was a challenge in conceptualizing and operationalizing the term "well-being." Across disciplines, this term (i.e., well-being) is defined differently but is often used synonymously with happiness (Diener & Seligman, 2002). The concept is frequently measured by asking respondents to report on questions regarding general satisfaction with life (Diener, 1984) or general state of happiness (Lyubomirsky & Lepper, 1999). These measures are useful, but some of the items (i.e., "If I could live my life over, I would change almost nothing.") are better suited for participants that are older than traditional-aged college students. Thus, to standardize the questionnaire for emerging adults and traditional-aged college participants, it was considered more prudent here to have participants respond to items from the Overall Adjustment Scale (Aspinwall & Taylor, 1992), which consists of items that are relevant to the college student demographic. One of the benefits of this scale is that it includes items pertaining to happiness within the context of university life (i.e., "Compared to the average freshman,

how happy do you think you are?"). Additionally, the Overall Adjustment Scale asks participants questions regarding the adjustment from home to college life (i.e., "Compared to the average freshman, how would you rate your overall adjustment?").

While the Overall Adjustment Scale was useful and appropriate for the current study, a future study may benefit from considering tangible outcomes that may also reflect college students' well-being (e.g., grades, retention, etc.). Evidence suggests that college students' social relationships influence their retention in college (Pascarella & Chapman, 1983), and that individual well-being is significantly linked to their grades and decision to stay in college (Napoli & Wortman, 1998). However, given the findings from the current investigation, future research should consider how individual well-being may actually mediate the link between college students' social relationships and college retention. Doing so would be especially useful because it may increase understanding of well-being as both an outcome variable and antecedent within the context of emerging adults. Also, such findings may yield practical insights for university administrators.

Another consideration for future studies is the time given between data collection points, or the possibility of additional data collection points. For the current study, data were collected at two time points during participants' first semester at college. Participation took place within the first three weeks of the academic year (Time 1) and then again within the last three weeks of the same semester (Time 2). These data collection points were chosen because freshmen friendships (Hays, 1985) and overall adjustment to college (Pascarella & Chapman, 1983) traditionally stabilize after six

weeks of being on campus. However, more time may be needed to study the degree to which participants establish closeness with their newfound friends.

Relational quality with friends was studied here as two distinct constructs—communication satisfaction (Hecht, 1978) and relational closeness (Vangelisti & Caughlin, 1997). Whereas communication satisfaction may be achieved quickly and even with acquaintances (Hecht, 1978), close relationships are defined by "strong, frequent, and diverse interdependence… over a considerable period of time" (Kelley et al., 1983; p. 38). In other words, establishing relational closeness with someone should take longer than achieving communication satisfaction. Lived experiences echo this claim; one can establish satisfying communication with a concierge, waiter, or any given acquaintance, yet never achieve relational closeness with these individuals. As such, relational closeness is likely a stronger indicator of long term friendship quality than communication satisfaction but also may take more time to achieve. For this reason, scholars conducting a similar study ought to consider ways to extend the time points between data collection or include an additional time for data collection, perhaps during participants' second semester, or at the start of their second academic year.

Additionally, in regard to relational quality with friends, the results from the friend-check data should be considered with caution. The "friend check" data reflected only a subsample of the study, as friendship quality reports were successfully elicited from only a quarter of participants' friends. This limits the results of the current study for two reasons. First, the results are limited to only those friends who were willing to volunteer their time and complete a survey for the benefit of their friend, a finding that

unto itself may indicate something about relational quality and give reason to suggest that this subsample may not truly be reflective of the full sample. Scholars interested in conducting a similar study would be wise to consider a better mechanism for capturing a higher percentage of friend reports.

A second limitation of the "friend check" may be that the data collected from participants' friends were limited to only two friendship quality measures, communication satisfaction and relational closeness. A brief survey with only two measures was employed because it captured the necessary information for this study but did so without requiring much time from respondents, an effort to prevent participant attrition. Collecting additional information from participants' friends, such as reports of their own friendship behaviors and well-being, would benefit future studies by studies allowing researchers to analyze reports of how relational quality and individual well-being are associated with and may be predicted by the friendship work of both friends. Collecting and analyzing these data would be beneficial for a number of reasons; in addition to advancing the objectives associated with the present investigation, these data would shed light on how reciprocity within friendship is associated with individuals' satisfaction with friends (Rook, 1987) and their overall well-being.

Lastly, the current investigation focused on the friendships of emerging adults, a limitation that prevents generalizing the results to people from other age cohorts or society at large. Emerging adulthood is a unique season of life, often characterized by leaving home and developing one's own social network (Blieszner & Adams, 1992; Pascarella & Chapman, 1983). Therefore, while friendship may likely be a fount of well-

being for all individuals, it would be unwise to project the findings from this study onto other age cohorts. Hopefully, though, the present findings will encourage future inquiry that extends to other age cohorts and life circumstances. For instance, the "sink or swim" effect that often accompanies emerging adults' transition out of the home and entrance into new social environments may resonate with people during various life events or transitions, such as relocating for a new job. Such transitions, especially those that involve relocation or periods of being apart from close relational ties, may highlight the importance of friendship formation and maintenance on individual well-being, as was found for emerging adults in the current study.

Conclusion

Most of the literature that relates friendship and well-being has focused on individuals' number of friends or the size of their social network, supporting the notion that well-being is associated closely with social relationships (Diener & Seligman, 2002). This, however, provides only a snapshot of a much larger and more complex picture of friendship. The evidence from the current investigation suggests that engaging in friendship formation strategies and maintenance behaviors is very important for emerging adults and is critical to their well-being. The findings demonstrated that participants in this study who engaged in friendship work (i.e., formation strategies and maintenance behaviors) reported greater well-being than those individuals who did not engage in such behaviors. For those participants who actively maintained their friendships, their report of well-being was even greater when relational quality was achieved. Thus, the results

presented here substantiated the original hypotheses that emerging adults' well-being is associated with their friendship work (i.e., formation strategies and maintenance behaviors). Additionally, this research emphasizes that emerging adults' propensity to engage in friendship comes at least in part from parental confirmation.

Taken together, findings from the current investigation begin to pave a social-cognitive pathway from family and friendship to well-being. This pathway provides a course for relationship scholars interested in exploring the links between family communication, friendship, and individuals' well-being. Scholars, practitioners, and laypersons alike may consider the social-cognitive pathway established here useful in explicating other antecedents to personal happiness.

Appendices

APPENDIX A: RECRUITMENT NOTICE

To interested participants, eligible for extra-credit:

IRB PROTOCOL #2010080038A

_____

Title: THE TRANSITION TO COLLEGE

Do not wait until the end of the semester to earn extra credit. Do it now, while you have the time! We are seeking FRESHMEN to participate in a study examining the transition to college. The study involves completing 2 on-line surveys—one now (before September 16th) and one towards the end of the semester. The first on-line survey takes roughly 20 minutes to complete, and can be completed at a time and location of your choosing.

As a part of the study, you will be asked to report on your close relationships and your transition to college. Please review the following criteria and click on the link below if you meet ALL of them.
--You are a first-year UT student.
--You would like to earn extra credit.
--You have access to the internet.
--You are capable of completing an on-line survey.

If you meet all four criteria, please navigate to the following link:

http://texascommunication.qualtrics.com/SE/?SID=SV_eyCD1bpuRC5IvwU

Please contact Trey at tguinn@austin.utexas.edu if you have any questions.

Thank you & Welcome to UT!

APPENDIX B: CONSENT FORM

Title: Transition to College **IRB PROTOCOL #2010080038**

Investigator
Trey Guinn, Ph.D. Candidate
Department of Communication Studies, UT Austin
512-232-7009
tguinn@austin.utexas.edu

You are being asked to participate in a research study. This first page provides you with information about the study. Your participation is entirely voluntary. You can refuse to participate without penalty or loss of benefits to which you are otherwise entitled. You can stop your participation at any time and your refusal will not impact current or future relationships with UT Austin or participating sites. To do so, simply close out the browser window and exit the survey. You may print a copy of this consent information for your records. Should you have any questions or concerns, please contact the researchers using the contact information above.

The purpose of this study: to explore freshmen's experiences during their first semester of college. Specifically, this study involves two surveys about your transition to college—one at the beginning of the semester and one at the end of the semester. Up to 1,000 participants will complete the surveys.

If you agree to be in this study, we will ask you to do the following things:
Complete this first, short on-line questionnaire now. The survey will be open until September 16th, 2011. Complete a second, short on-line questionnaire between November 14th and Dec. 2nd, 2011. We will email you a link to the second survey on or before November 14th.

Total estimated time to participate in each survey is approximately 20 minutes.

Risks/Benefits of being in the study:
There is a slight risk of psychological or emotional distress (e.g., recalling thoughts and/or memories of family experiences, recalling negative experiences during your transition to college). This study may involve risks that are currently unforeseeable. If you wish to discuss the information above or any other risks you may experience, you may email or call the principal investigator listed above. Or, if you would like to seek professional assistance regarding any concerns this questionnaire elicits or about any other issue, you can contact UT's Counseling and Mental Health Center located on the 5th floor of the Student Services Building (SSB), 100 W. Dean Keeton St. Their phone number is (512)-471-3515. You can also receive Telephone Counseling at 471-CALL. These services are free to students currently enrolled in courses. Potential benefits for you as the participant include thinking about your experiences in a new way or recalling positive college experiences. Additionally, your participation contributes to research that offers new insights into freshmen's transition to college. You can also obtain a summary of the results of this study by contacting the researcher (see above information) after April 30th, 2012.

Compensation:
You will receive extra credit points toward your grade in one of your CMS classes. The exact amount of extra credit will be determined by your instructor. If you have questions about the exact amount of extra credit you will earn, please contact your instructor prior to completing the survey. You may also complete an alternative for research credit. All of the extra credit will be forwarded to instructors after the second survey

Confidentiality and Privacy Protections:
To contact you for the second survey, to link your two surveys, and to award your extra credit, you will be asked to provide your name, UTEID, email address and information about the class you want to attribute the extra credit to. This information will only be used for the purposes listed above. Once all the data are collected after the second survey and the extra credit is awarded, your name, UTEID, and class information will be deleted from the data. Responses will be collected from *Qualtrics.com*. No one other than the principal investigator will have access to your identifying information with the exception of the instructor you indicate (your name but not your responses will be forwarded to your instructor). The data resulting from your participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate you with it, or with your participation in any study.

The records of this study will be stored securely and kept confidential. Authorized persons from The University of Texas at Austin, members of the Institutional Review Board, and (study sponsors, if any) have the legal right to review your research records and will protect the confidentiality of those records to the extent permitted by law. All publications will exclude any information that will make it possible to identify you as a subject.

Contacts and Questions:
If you have any questions about the study please email or call the PI listed above. If you have questions later, want additional information, or wish to withdraw your participation, close the browser window at any time. If you have questions about your rights as a research participant, complaints, concerns, or questions about the research please contact Jody L. Jensen, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects at (512) 232-2685 or the Office of Research Support and Compliance at (512) 471-8871 or email: orsc@uts.cc.utexas.edu.

You may print a copy of this for your records.

CONSENT:
Because this is an online survey, written signatures cannot be used to give your consent to participate.

For this study, *your consent is given when you enter the survey (by clicking the ">>" button below)*.

I have read the above information and have sufficient information to make a decision about participating in this study.

I certify that I am at least 18 years of age.

By entering the survey, I am giving my consent to participate in the study.

APPENDIX C: TIME 1 FRIENDSHIP FORMATION MEASURE

(McEwan & Guerrero, 2010)

Please rank which of the following methods you feel you are likely to use to make friends at college. An answer of 1 means you are "not at all likely" to engage in this method of making friends. An answer of 7 means you are "highly likely" to engage in this method of making friends.

In making friends at UT, how likely are you to:

1. …Invite people to hang out
2. …Join an on-campus club
3. …Offer to help people with schoolwork
4. …Discuss my feelings about the UT student body
5. …Become involved with a religious organization
6. …Tell people they are important to me
7. …Join a student organization
8. ...Invite people to attend social events with me
9. …Do favors for people
10. …Rush a fraternity or sorority
11. …Discuss my future career plans with others
12. …Praise others accomplishments
13. …Join an intramural sports team
14. …Accept invitations from others
15. …Loan items to people
16. …Talk about my coursework and/or teachers
17. …Hug others
18. …Make friends with people in my classes
19. …Invite people to go to a movie
20. …Listen to others' problems
21. …Talk about my hobbies
22. …Find new friends through friends I already had
23. …Tell others that they are my friend
24. …Invite others to come over to my place
25. …Make friends with people I work with
26. …Talk about my taste in clothes
27. …Tell others I care about them
28. …Make friends with people who live in my dorm
29. …Talk about my likes and dislikes in music
30. …Give others compliments
31. …Tell others about the type of entertainment I enjoy
32. …Tell others that they are a good friend
33. …Be friends with people I knew before I came to UT who are also at UT.
34. …Talk about how I spent my summer
35. …Join an online group to meet others at UT
36. …Sit closer to others I want to know better
37. …Put my arm around others I want to know better
38. …Make friends with others at UT through a social networking website (e.g., Facebook)

APPENDIX D: TIME 1 FRIENDSHIP MAINTENANCE MEASURE

(Oswald, Clark, & Kelly, 2010)

The statements below are asking about your close friendships. As you read through these statements, keep in mind your closest friends. An answer of 1 indicates that you "never" do this with your close friends. An answer of 7 indicates that you do this "often" with your close friends.

How often do you and your close friends:

1. …Express thanks when one friend does something nice for the other?
2. …Try to make each other laugh?
3. ...Ignore each other?
4. …Not return each other's messages?
5. …Talk about each other behind friend's back?
6. …Threaten to end the friendship because of something that happened?
7. …Try to be upbeat and cheerful when together?
8. …Plan specific activities to do together?
9. …Blame each other for bad things that happen?
10. …Reminisce about things you did together in the past?
11. …Make sacrifices for each other?
12. …Become angry with each other?
13. …Try to make the other person "feel good" about who they are?
14. …Let each other know you accept them for who they are?
15. …Support each other when one of you is going through a difficult time?
16. …Talk about your friendship?
17. …Apologize for something that happened?
18. …Give one another compliments?
19. …Let each other know you want the relationship to last in the future?
20. …Listen without making any judgment?
21. …Provide each other with emotional support?
22. …Phone or e–mail each other?
23. …Make compromises when you disagree about something?
24. …Write cards or letters to each other?
25. …Share your private thoughts with each other?
26. …Repair misunderstandings?
27. …Give advice to each other?
28. …Show signs of affection toward each other?
29. …Have intellectually stimulating conversations?
30. …Go to social gatherings together?
31. …Do favors for each other?
32. …Visit each other's homes?
33. …Make an effort to spend time together even when you are busy?
34. …Do new or unique activities together?
35. …Get together just to hang–out?
36. …Celebrate special occasions together?

APPENDIX E: TIME 1 RELATIONAL QUALITY MEASURES

1. Relational Closeness (Vangelisti & Caughlin, 2002)

The statements below are asking about the specific friend that you identified just a moment ago. As you read through the next seven questions, keep in mind that an answer of 1 indicates "not at all," whereas an answer of 7 indicates "very much."

In thinking of this specific friend, please answer the following:

1. How close are you to your friend?
2. How much do you like your friend?
3. How often do you talk about personal things with this person?
4. How important is your friend's opinion to you?
5. How satisfied are you with your relationship with your friend?
6. How much do you enjoy spending time with your friend?
7. How important is your relationship with your friend?

2. Interpersonal Communication Satisfaction (Hecht, 1978)

The statements below are asking about the specific friend that you identified just a moment ago. As you read through these brief statements, keep in mind that an answer of 1 indicates "strongly disagree," whereas an answer of 7 indicates "strongly agree."

During conversations with my friend:

1. …we each get to say what we want.
2. …I feel that we can laugh easily together.
3. …nothing is accomplished.
4. …I am satisfied with our conversations.
5. …I do not enjoy our conversations.
6. …We talk about things I am not interested in.
7. …s/he typically expresses interest in what I have to say.
8. …I feel I can talk about anything with him/her.
9. …I am able to present myself as I want him/her to view me.
10. …s/he seems to show that s/he understands what I say.
11. …s/he frequently says things which add little to the conversations.
12. …our conversations flow smoothly.

APPENDIX F: TIME 1 WELL-BEING MEASURE

Adjustment to College Index (Aspinwall & Taylor, 1992)

Please indicate the number that best describes how much you agree with the following statements.

		Much Less Happy		**About the Same**		**Much Happier**
1.	Compared to the average UT freshman, how happy do you think you are?	1	2	3	4	5
2.	Compared to the average UT freshman living in residence halls, how happy do you think you are?	1	2	3	4	5
		Not Well at All				**Very Well**
3.	How well do you think you've adjusted academically to UT?	1	2	3	4	5
4.	How well do you think you've adjusted socially to UT?	1	2	3	4	5
5.	Overall, how well do you think you've adjusted to UT?	1	2	3	4	5
		Much Worse		**About the Same**		**Much Better**
6.	Compared to the average UT freshman, how would you rate your overall adjustment?	1	2	3	4	5
		Always		**Sometimes**		**Never**
7.	How often do you feel like you belong at UT?	1	2	3	4	5
8.	When you are on campus, how often do you wish you were somewhere else?	1	2	3	4	5
		Very Unhappy				**Very Happy**
9.	How happy are you at UT?	1	2	3	4	5

APPENDIX G: TIME 1 PARENT CONFIRMATION MEASURES

1. Acceptance Scale (modified version of Schaefer, 1965)

Please select the number that best describes how much you agree with the following statements regarding general conversations with this parent (or parental-figure). An answer of 1 indicates "strongly disagree," whereas an answer of 7 indicates "strongly agree."

During conversations, s/he…

1. …smiled at me often
2. …gave me a lot of attention
3. …was judgmental
4. …showed s/he understood how I feel
5. …was easy to talk to
6. …ignored me
7. …showed s/he cares about me
8. …accepted my feelings or views even when s/he disagreed with me
9. …was emotionally cold
10. …used a friendly voice

2. Challenge Scale (Dailey, 2008)

Please select the number that best describes how much you agree with the following statements regarding general conversations with this parent (or parental-figure). An answer of 1 indicates "strongly disagree," whereas an answer of 7 indicates "strongly agree."

During conversations, s/he…

1. …helped me channel my negative emotions into more positive actions.
2. …pushed me to resolve problems rather than just complain about them.
3. …discussed different perspectives with me regarding complex issues.
4. …and I had playful arguments about ideas.
5. …allowed me to make my own decisions even though I might make a few mistakes.
6. …made me deal with the consequences of my decisions or behaviors.
7. …asked me what I learned from my failures.
8. …exposed me to different experiences.
9. …asked me to explain the reasoning behind my decisions.
10. …pushed me to set goals in my sports activities.

APPENDIX H: TIME 2 FRIENDSHIP FORMATION MEASURE

Friendship Formation Strategies (McEwan & Guerrero, 2010)

For these statements, an answer of 1 means you "never" engaged in this method of making friends, whereas an answer of 7 means you engaged in this method "often."

In making friends at UT, how often have you:

1. …invited people to hang out
2. …offered to help people with schoolwork
3. …discussed my feelings about the UT student body with others
4. …told people they are important to me
5. …invited people to attend social events with me
6. …did favors for people
7. …discussed my future career plans with others
8. …praised others accomplishments
9. …accepted invitations from others
10. …loaned items to people
11. …talked about my coursework and/or teachers
12. …hugged others
13. …invited people to go to a movies
14. …listened to others' problems
15. …talked about my hobbies
16. …told others that they are my friend
17. …invited others to come over to my place
18. …talked about my taste in clothes
19. …told others I care about them
20. …talked about my likes and dislikes in music
21. …gave others compliments
22. …told others about the type of entertainment I enjoy
23. …told others that they are a good friend
24. …talked about how I spent my summer
25. …sat close to others I wanted to know better
26. …put my arm around others I wanted to know better

For these next questions, respond by selecting "yes" or "no."

27. In making friends at UT, have you:
28. …joined an on-campus club
29. …joined a student organization
30. …rushed a fraternity or sorority
31. …joined an intramural sports team
32. …joined a sport club
33. …made friends with people in your classes
34. …found new friends through friends you already had
35. …made friends with people you work with
36. …made friends with people who live in your dorm
37. …stayed friends with people you knew before coming to UT
38. …made friends with others at UT by joining an online group
39. …made friends with others at UT through a social networking site (e.g., Facebook)

APPENDIX I: TIME 2 FRIENDSHIP MAINTENANCE MEASURE

Relational Maintenance Scale (Oswald, Clark, & Kelly, 2010)

The statements below are asking about your close friendships made since coming to college. As you read through these statements, keep in mind your closest friends at UT. An answer of 1 indicates that you "never" do this with your close friends. An answer of 7 indicates that you do this "often" with your close friends.

How often do you and your close friends:

1. …Express thanks when one friend does something nice for the other?
2. …Try to make each other laugh?
3. ...Ignore each other?
4. …Not return each other's messages?
5. …Talk about each other behind friend's back?
6. …Threaten to end the friendship because of something that happened?
7. …Try to be upbeat and cheerful when together?
8. …Plan specific activities to do together?
9. …Blame each other for bad things that happen?
10. …Reminisce about things you did together in the past?
11. …Make sacrifices for each other?
12. …Become angry with each other?
13. …Try to make the other person "feel good" about who they are?
14. …Let each other know you accept them for who they are?
15. …Support each other when one of you is going through a difficult time?
16. …Talk about your friendship?
17. …Apologize for something that happened?
18. …Give one another compliments?
19. …Let each other know you want the relationship to last in the future?
20. …Listen without making any judgment?
21. …Provide each other with emotional support?
22. …Phone or e–mail each other?
23. …Make compromises when you disagree about something?
24. …Write cards or letters to each other?
25. …Share your private thoughts with each other?
26. …Repair misunderstandings?
27. …Give advice to each other?
28. …Show signs of affection toward each other?
29. …Have intellectually stimulating conversations?
30. …Go to social gatherings together?
31. …Do favors for each other?
32. …Visit each other's homes?
33. …Make an effort to spend time together even when you are busy?
34. …Do new or unique activities together?
35. …Get together just to hang–out?
36. …Celebrate special occasions together?

APPENDIX J: TIME 2 RELATIONAL QUALITY MEASURES

1. Relational Closeness (Vangelisti & Caughlin, 2002)

The statements below are asking about the specific friend that you identified just a moment ago. As you read through the next seven questions, keep in mind that an answer of 1 indicates "not at all," whereas an answer of 7 indicates "very much."

In thinking of this specific friend, please answer the following:

1. How close are you to your friend?
2. How much do you like your friend?
3. How often do you talk about personal things with this person?
4. How important is your friend's opinion to you?
5. How satisfied are you with your relationship with your friend?
6. How much do you enjoy spending time with your friend?
7. How important is your relationship with your friend?

2. Interpersonal Communication Satisfaction (Hecht, 1978)

The statements below are asking about the specific friend that you identified just a moment ago. As you read through these brief statements, keep in mind that an answer of 1 indicates "strongly disagree," whereas an answer of 7 indicates "strongly agree."

During conversations with my friend:

1. …we each get to say what we want.
2. …I feel that we can laugh easily together.
3. …nothing is accomplished.
4. …I am satisfied with our conversations.
5. …I do not enjoy our conversations.
6. …We talk about things I am not interested in.
7. …s/he typically expresses interest in what I have to say.
8. …I feel I can talk about anything with him/her.
9. …I am able to present myself as I want him/her to view me.
10. …s/he seems to show that s/he understands what I say.
11. …s/he frequently says things which add little to the conversations.
12. …our conversations flow smoothly.

APPENDIX K: TIME 2 WELL-BEING MEASURE

Adjustment to College Index (Aspinwall & Taylor, 1992)

Please indicate the number that best describes how much you agree with the following statements.

		Much Less Happy		**About the Same**		**Much Happier**
1.	Compared to the average UT freshman, how happy do you think you are?	1	2	3	4	5
2.	Compared to the average UT freshman living in the residence halls, how happy do you think you are?	1	2	3	4	5
		Not Well at All				**Very Well**
3.	How well do you think you've adjusted academically to UT?	1	2	3	4	5
4.	How well do you think you've adjusted socially to UT?	1	2	3	4	5
5.	Overall, how well do you think you've adjusted to UT?	1	2	3	4	5
		Much Worse		**About the Same**		**Much Better**
6.	Compared to the average UT freshman, how would you rate your overall adjustment?	1	2	3	4	5
		Always		**Sometimes**		**Never**
7.	How often do you feel like you belong at UT?	1	2	3	4	5
8.	When you are on campus, how often do you wish you were somewhere else?	1	2	3	4	5
		Very Unhappy				**Very Happy**
9.	How happy are you at UT?	1	2	3	4	5

References

Akaike, H. (1974). A New Look at the Statistical Model Identification. *IEE Transactions on Automatic Control*, *19,* 6, 716-723.

Allan, G. A. (1989). *Friendship: Developing a sociological perspective.* San Francisco: Westview.

Allan, G. A. (2001). Personal relationships in late modernity. *Personal Relationships, 8,* 325–339.

Altman, I., & Taylor, D. (1973). *Social penetration: The development of interpersonal relationships.* New York: Holt, Rinehart, and Winston.

Argyle M. (2001). *The Psychology of Happiness.* London: Routledge.

Argyle, M., & Henderson, M. (1984). The rules of friendship. *Journal of Social and Personal Relationships, 1*, 211 -237.

Aspinwall, L. G., & Taylor, S. E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology*, *63*, 989–1005.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182.

Baxter, L. A. (2004). Relationships as dialogues. *Personal Relationships, 11*, 1–22.

Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*, 2, 238–246.

Bentler, P.M. (1995). *EQS structural equations program manual.* Encino, CA: Multivariate Software.

Berndt, T. J., & Hanna, N. A. (1995). Intimacy and self-disclosure in friendships. In K. J. Rotenberg (Ed.), *Disclosure processes in children and adolescents* (pp. 57–77). Cambridge: Cambridge University Press.

Blieszner, R., & Adams, R. G. (1992). Adult friendship. Newbury Park, CA: Sage.

Buber, M. (1965). The knowledge of man. New York: Harper & Row.

Canary, D., & Stafford, L. (1992). Relational maintenance strategies and equity in marriage. *Communication Monographs, 59,* 239–267.

Canary, D. J., Stafford, L., Hause, K. S., & Wallace, L. A. (1993). An inductive analysis of relational maintenance strategies: Comparisons among lovers, relatives, friends, and others. *Communication Research Reports, 10,* 5-14.

Cissna, K., & Sieburg, E. (1981). Patterns of interactional confirmation and disconfirmation. In C. Wilder-Mott & J. H. Weakland (Eds.), *Rigor and imagination: Essays from the legacy of Gregory Bateson* (pp. 253-282). New York: Praeger.

Cohen, S., Sherrod, D., & Clark, M. (1986). Social skills and the stress-protective role of social support. *Journal of Personality and Social Psychology, 50,* 963–973.

Dailey, R. M. (2006). Confirmation in parent-adolescent relationships and adolescent openness: Toward extending confirmation theory. *Communication Monographs, 73,* 434-458.

Dailey, R. M. (2008). Parental challenge: Developing and validating a measure of how parents challenge their adolescents. *Journal of Social and Personal Relationships, 25,* 643-669.

Dailey, R. M. (2009). Confirmation from family members: Parent and sibling contributions to adolescent psychosocial adjustment. *Western Journal of Communication, 73,* 273-299.

Diener, E. (1984) Subjective well-being. *Psychological Bulletin 95,* 542–575.

Diener E., & Seligman M. (2002). Very happy people. *Psychological Science, 13,* 81-184.

Diener, E., Suh, E., Lucas, R., & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125,* 76–302.

Dindia, K., & Canary, D. (1993). Definitions and theoretical perspectives on maintaining relationships. *Journal of Social and Personal Relationships, 10,* 163-173.

Elwood, T. D., & Schrader, D. C. (1998). Family communication patterns and communication apprehension. *Journal of Social Behavior and Personality, 13,* 493–502.

Ellis, K. (2002). Perceived parental confirmation: Development and validation of an instrument. *Southern Communication Journal, 67,* 319-334.

Fehr, B. (1996). *Friendship processes.* Thousand Oaks, CA: Sage.

Fehr, B. (2008). Friendship formation. In S. Sprecher, A. Wenzel, & J. Harvey (Eds.), *The handbook of relationship initiation* (pp. 29–54). Thousand Oaks, CA: Sage

Fitzpatrick, M. & Ritchie, L. (1994). Communication schemata within the family: Multiple perspective on family interaction. *Human Communication Research, 20,* 275–301.

Fitzpatrick, M. & Caughlin, J. (2002). Interpersonal communication in family relationships. In M. L.Knapp & J. A.Daly (Eds.), *Handbook of interpersonal communication* (3rd ed., pp. 726–777). Thousand Oaks, CA: Sage.

Friedman, M. S. (1983). *The confirmation of otherness, in family, community, and society.* New York: Pilgrim Press.

Furman, W. & Bierman, K. (1984). Children's conceptions of friendship: A multimethod study of developmental changes. *Developmental Psychology, 20,* 925-933.

Gitelson, I. B., & McDermott, D. (2006). Parents and their young adult children: Transitions to adulthood. *Child Welfare, 5,* 853-866

Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A Very Brief Measure of the Big Five Personality Domains. *Journal of Research in Personality, 37,* 504-528.

Griffin, E., & Sparks, G. (1990). Friends forever: A longitudinal exploration of intimacy in same-sex friends and platonic pairs. *Journal of Social and Personal Relationships, 7,* 29–46.

Guerrero, L. K., & Chavez, A. M. (2005). Relational maintenance in cross-sex friendships characterized by different types of romantic intent: An exploratory study. *Western Journal of Communication, 69,* 339–358.

Hanna, N.A., & Berndt, T.J. (1995). Relations between friendship, group acceptance, and evaluations of summer camp. *Journal of Early Adolescence, 15*, 456-475.

Hays, R. B. (1984). The development and maintenance of friendship. *Journal of Social and Personal Relationships, 1,* 75-98.

Hays, R. B. (1985). A longitudinal study of friendship development. *Journal of Personality and Social Psychology, 48,* 4, 909-924.

Hays, R. B. (1989). The day to day functioning of close versus casual friendships. *Journal of Social and Personal Relationships, 6,* 21-37.

Hecht, M. L. (1978). The conceptualization and measurement of interpersonal communication satisfaction. *Human Communication Research,* 4, 253-264.

House, J., Landis, K., & Umberson, D. (1988). *Social relationships and health. Science, 241,* 4865, 540-545.

Johnson, A. J., Wittenberg, E., Villagran, M. M., Mazur, M., & Villagran, P. (2003). Relational progression as a dialectic: Examining turning points in communication among friends. *Communication Monographs,* 70, 230–249.

Keeley, M. P., & Hart, A. J. (1994). Nonverbal behavior in dyadic interactions. In S.W. Duck (Ed.), *Dynamics of relationships* (pp. 135–162). Thousand Oaks, CA: Sage.

Kelley, H., Berscheid, E., Christensen, A., Harvey, J., Huston, T., Levinger, G., McClintock, E., Peplau, A. & Peterson, D. (1983). *Close relationships*. San Francisco: Freeman.

Kenny, D., & Acitelli, L. (2001). Accuracy and bias in the perception of the partner in a close relationship. *Journal of Personality and Social Psychology, 80*(3), 439-448.

Kline, R.B. (2005). *Principles and Practice of Structural Equation Modeling* (2nd ed.). New York: The Guilford Press.

Koerner, A. F., & Fitzpatrick, M. A. (2002). Toward a theory of family communication. *Communication Theory, 12,* 70–91.

Koesten, J. (2004). Family communication patterns, sex of subject, and communication competence. *Communication Monographs, 71,* 2, 226-244.

Laing, R. D. (1961). *The self and others.* London: Tavistock Publications.

Ledbetter, A. M. (2009). Family communication patterns and relational maintenance behavior: Direct and mediated associations with friendship closeness. *Human Communication Research, 35,* 130-147.

Ledbetter, A. M., Griffin, E., & Sparks, G. G. (2007). Forecasting ‘‘friends forever’’: A longitudinal investigation of sustained closeness between college best friends. *Personal Relationships,* 14, 343–350.

Levinger, G., & Breedlove, J. (1966). Interpersonal attraction and agreement. *Journal of Personality and Social Psychology, 3,* 367–372.

Lyubomirsky, S., & Lepper, H. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research, 46,* 137-155.

McEwan, B. Guerreo, L. (2010). Freshmen engagement through communication: Predicting friendship formation strategies and perceived availability of network resources from communication skills. *Communication Studies, 61,* 445-463

McPherson, M., Smith-Lovin, L., & Brashears, M. E. (2006). Social Isolation in America: Changes in Core Discussion Networks over Two Decades. *American Sociological Review, 71,* 3, 353-375.

Moos, R. (2002). Life stressors, social resources, and coping skills in youth: Applications to adolescents with chronic disorders. J*ournal of Adolescent Health, 30,* 22–29.

Murstein, B. I. (1970). Stimulus-Value-Role: A theory of marital choice. *Journal of Marriage and Family, 32,* 465–481.

Muthén, B., & Muthén, L. (2010). *Mplus user's guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.

Myers, D. G. (1992). *The pursuit of happiness: Who is happy and why.* New York: William Morrow.

Oswald, D. L., Clark, E. M., & Kelly, C. L. (2004). Friendship maintenance behaviors: An analysis of individual and dyad behaviors. *Journal of Social and Clinical Psychology, 23*, 3, 413-441.

Parks, M. R., & Floyd, K. (1996). Making friends in cyberspace. *Journal of Computer-Mediated Communication, 1,* 4.

Pascarella, E. T., & Chapman, D. W. (1983). A Multiinstitutional, Path Analytic Validation of Tinto's Model of College Withdrawal. *American Educational Research Journal, 20*, 1, 87-102.

Peterson, G. W., & Hann, D. (1999). Socializing children and parents in families. In M. B. Sussman, S. K. Steinmetz, & G.W. Peterson (Eds.), *Handbook of marriage and the family* (2nd ed.; pp. 327–370). New York: Plenum Press.

Rawlins, W. K. (1992). *Friendship matters: communication, dialectics, and the life course*. Transaction Publishers.

Reis, H. T. (2001). Relationship experiences and emotional well-being. In C. D. Ryff & B. H. Singer (Eds.), *Emotion, social relationships, and health* (pp. 57-86). New York: Oxford University Press.

Rook, K.S. (1987). Reciprocity of social exchange and social satisfaction among older women. *Journal of Personality and Social Psychology*, *52*, 145–154.

Rose, S., & Serafica, F. (1986). Keeping and ending casual, close and best friendships. *Journal of Social and Personal Relationships, 3*, 275-288.

Samter, W., Whaley, B. B., Mortenson, S. R., & Burleson, B. R. (1997). Ethnicity and emotional support in same-sex friendship: A comparison of Asian-Americans, African-Americans, and EuroAmericans. *Personal Relationships, 4*, 413-430.

Schaefer, E. S. (1965). A configurational analysis of children's reports of parent behavior. *Journal of Consulting Psychology, 29*, 552–557.

Schrodt, P., & Ledbetter, A. M. (2007). Communication processes that mediate family communication patterns and mental well-being: A mean and covariance structures analysis of young adults from divorced and non-divorced families. *Human Communication Research, 33,* 330-356.

Schrodt, P., Ledbetter, A. M., & Ohrt, J. K. (2007). Parental confirmation and affection as mediators of family communication patterns and children's mental well-being. *Journal of Family Communication, 7,* 23_46.

Schwarz, G. (1978). Estimating the Dimension of a Model. *The Annals of Statistics, 6,* 461-464.

Sieburg, E. (1985). *Family communication: An integrated systems approach*. New York: Gardner Press.

Sillars, A. L. (1985). Interpersonal perception in relationships. In W. J. Ickes (Ed.), *Compatible and incompatible relationships* (pp. 277–305). New York: Springer.

Shaver, P., Furman, W., & Buhrmester, D. (1985). *Transition to college*: Network changes, social skills, and loneliness. In S. Duck & D. Perlman (Eds.), *Understanding personal relationships: An interdisciplinary approach* (pp. 193–220). London, England: Sage.

Stafford, L., & Canary, D. J. (1991). Maintenance strategies and romantic relationship type, gender and relational characteristics. *Journal of Social and Personal Relationships, 8*, 217-242.

Steiger, J. H., &Lind, J. M. (1980). *Statistically-based tests for the number of common factors.* Paper presented at Psychometric Society Meeting, Iowa City, May 1980.

Taylor, R. J., Chatters, L. M., Hardison, C. B., & Riley, A. (2001). Informal Social Support Networks and Subjective Well-Being among African Americans. *Journal of Black Psychology*, *27*(4), 439 -463.

Vangelisti, A. L. (1993). Communication in the family: The influence of time, relational prototypes, and irrationality. *Communication Monographs, 60*, 1, 42-54.

Vangelisti, A. L. (2004). *Handbook of family communication*. Mahwah, NJ: Lawrence Erlbaum.

Vangelisti, A. L., & Caughlin, J. P. (1997). Revealing family secrets: The influence of topic, function, and relationships. *Journal of Social and Personal Relationships, 14,* 679-707.

Watzlawick, P., Beavin, J. H., & Jackson, D. D. (1967). *Pragmatics of human communication.* New York: Norton.

Wilson, W. (1967). Correlates of avowed happiness. *Psychological Bulletin, 67*, 294–306.

Wright, P. H. (1984). Self-Referent Motivation and the Intrinsic Quality of Friendship. *Journal of Social and Personal Relationships, 1,* 1, 115 -130.